ORDER NO. TSD-7611-262

Service Manual

Compact Stereo
SG-3060L

FM/AM/FM STEREO RADIO WITH FM PRESET TUNING SYSTEM WITH DOLBY* NOISE REDUCTION SYSTEM, CASSETTE PLAYER/RECORDER AND RECORD PLAYER

Specifications

AMPLIFIER SECTION

Power Output	MPO 2 × 25W (THD 1%, 4Ω) RMS 2 × 20W (THD 1%, 4Ω) One Channel Driven RMS 2 × 17W (THD 1%, 4Ω) Both Channel Driven
Frequency Response	20 Hz ~ 50 kHz, −3 dB
Power Band Width	30 Hz ~ 30 kHz, −3 dB
Input Sensitivity and Impedance:	
Phono	3 mV, 47kΩ
Mic	1 mV, 3kΩ
Tape	250 mV, 30kΩ
Rec Out and Impedance	DIN: 30 mV, 82kΩ
Tone Controls:	
Bass	±15 dB at 50 Hz
Treble	±15 dB at 10 kHz

FM TUNER SECTION

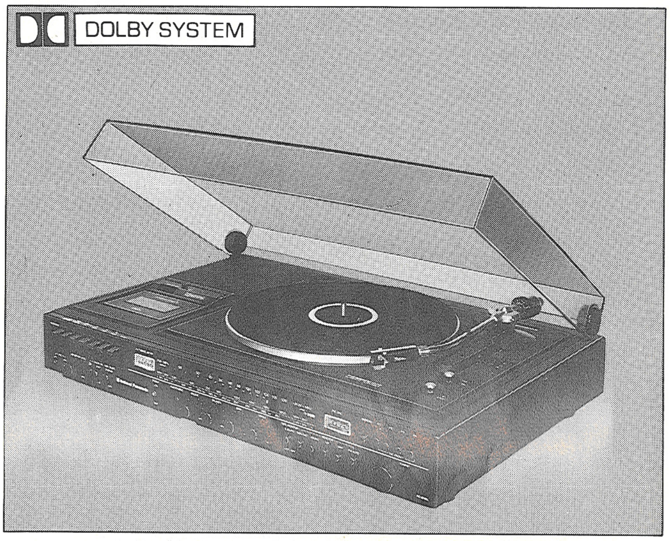
Tuning System	Varactor Diode with 4 Pre-selectors and Manual Tuning
Frequency Range	87.5 MHz ~ 108 MHz
Intermediate Frequency (IF)	10.7 MHz
Sensitivity	2 μV (S/N 26 dB, Mod. 40 kHz)
Image Ratio	45 dB (98 MHz)
Signal to Noise Ratio	60 dB (at 1 kHz, 60 dB, 40 kHz)
Distortion	MONO: 0.55% (at 1 kHz, 60 dB, 40 kHz) STEREO: 0.65% (at 1 kHz, 60 dB, 40 kHz)
Stereo Separation	40 dB (at 1 kHz, 60 dB, 30%) 30 dB, 250 Hz ~ 6.3 kHz) (60 dB, 30%) 17 dB, 6.3 kHz ~ 12.5 kHz (60 dB, 30%)
Selectivity	60 dB (at 98 MHz, 40 dB, at 1 kHz, 30%)

AM TUNER SECTION

Frequency Range	MW: 525 ~ 1605 kHz (572 ~ 187 m) LW: 145 ~ 350 kHz (2070 ~ 857 m)
Intermediate Frequency (IF)	455 kHz
Sensitivity	MW: 100 μV/m for 50 mW (1 MHz) LW: 250 μV/m for 50 mW (220 kHz)
Image Ratio	MW: 45 dB (1 MHz) LW: 35 dB (220 kHz)

RECORD PLAYER SECTION

Player System	Belt-Drive, Automatic Return
Turntable	30 cm (12″), Aluminum Die-Cast
Turntable Speeds	33-1/3 and 45 rpm, 2-speed
Wow and Flutter	0.12% (WRMS)
Deviation of Turntable Speeds	+1.5%, −1.0% (DIN)
Phonomotor	Frequency Generated Servo DC Motor
Cartridge	Moving Magnet, EPC-76SMAD
Stylus	Diamond, EPS-565TSD
Stylus Pressure	3.5 ± 0.25g
Frequency Response	20 Hz ~ 20 kHz
Separation	≧ 15 dB
Signal to Noise Ratio	> 55 dB



* Dolby is the trade mark of Dolby Laboratories Inc.

CASSETTE DECK SECTION

Playing System	Auto Stop and Pause Control
Track System	4-Track, 2-Channel
Recording System	AC Bias, 50 kHz with Dolby NR System
Erasing System	AC Erase, 50 kHz
Tape Speed	4.75 cm/sec. (1-7/8 i.p.s.)
Frequency Response	25 Hz ~ 13 kHz (NORMAL) 20 Hz ~ 16 kHz (CrO_2)
Signal to Noise Ratio	DOLBY NR − OUT: 54 dB (DIN) DOLBY NR − IN: 60 dB (DIN)
Erase Ratio	70 dB (DIN)
Channel Separation	43 dB (DIN)
Cross Talk	54 dB (DIN)
Wow and Flutter	0.15% (WRMS)

POWER CONSUMPTION	135W
POWER SUPPLY	AC 220V

DIMENSION (W × H × D)

Center Unit	620 mm × 170 mm × 413 mm (24-13/32″) × (6-11/16″) × (16-1/4″)

WEIGHT

Center Unit	12.5 kg (27 lb. 9 oz.)

- Specifications are subject to change without notice for further improvement.

National Panasonic

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

DISASSEMBLY INSTRUCTIONS

■ To Remove Record Player

Lift record player and unplug two 3P connector jacks from PC board.

Note:

When removing turntable, be sure to take off the belt from the capstan as shown in Fig. 1.

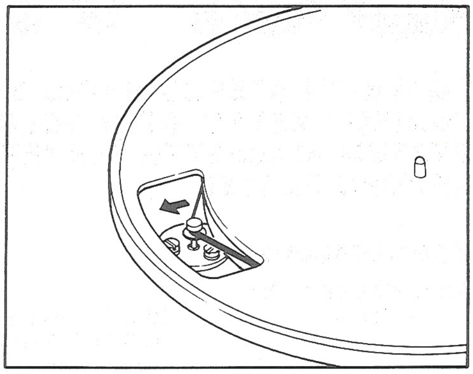


FIG. 1

■ To Replace Components

1. Remove record player. (Refer to above instructions)
2. Push EJECT button to open cassette cover.
3. Carefully push stops of cassette lid located on both sides, as shown in Fig. 2. Then cassette lid can now be removed from cassette cover.
4. Remove six (6) cabinet mounting screws, Nos. 1 ~ 6, as shown Fig. 4.
5. Remove six (6) knobs from front panel.
6. Remove one (1) bottom board mounting screws, Nos. 7 as shown Fig. 4.
7. Unsolder faulty components, and replace it with a new one.
8. To reassemble, reverse above procedure.

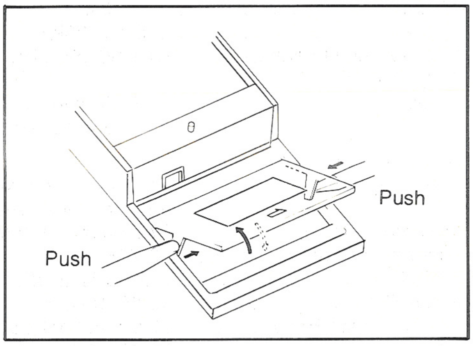


FIG. 2

■ To Remove Escutcheon from Chassis

1. Refer to above instructions, 1 to 5.
2. Remove three (3) escutcheon mounting screws Nos. 8 ~ 10, as shown in Fig. 4.
3. Remove two meters, from escutcheon as shown in Fig. 3.

   Note:

   After installing, check if the insertion is perfect.
4. To reassemble, reverse above procedure.

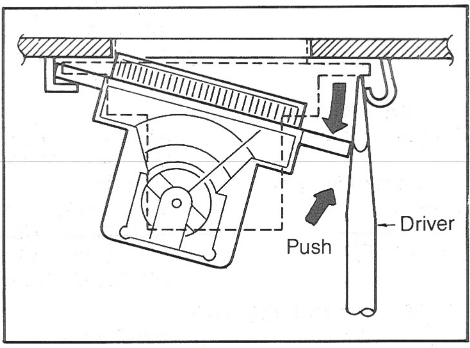


FIG. 3

■ To Remove Cassette Tape Deck

1. Refer to instruction 1 to 5 above.
2. Remove five (5) cassette deck mounting screws Nos. 10 ~ 14, as shown in Fig. 4.
3. To reassemble, reverse above procedure.

LOCATION OF PARTS

❶~❷	XYN26+C8
❸~❻	XTW3+15FZK
❼	XTW3+8FZK
❽	XTV3+15FZK
❾~❿	XTV3+8B
⓫~⓮	XTV3+12BR

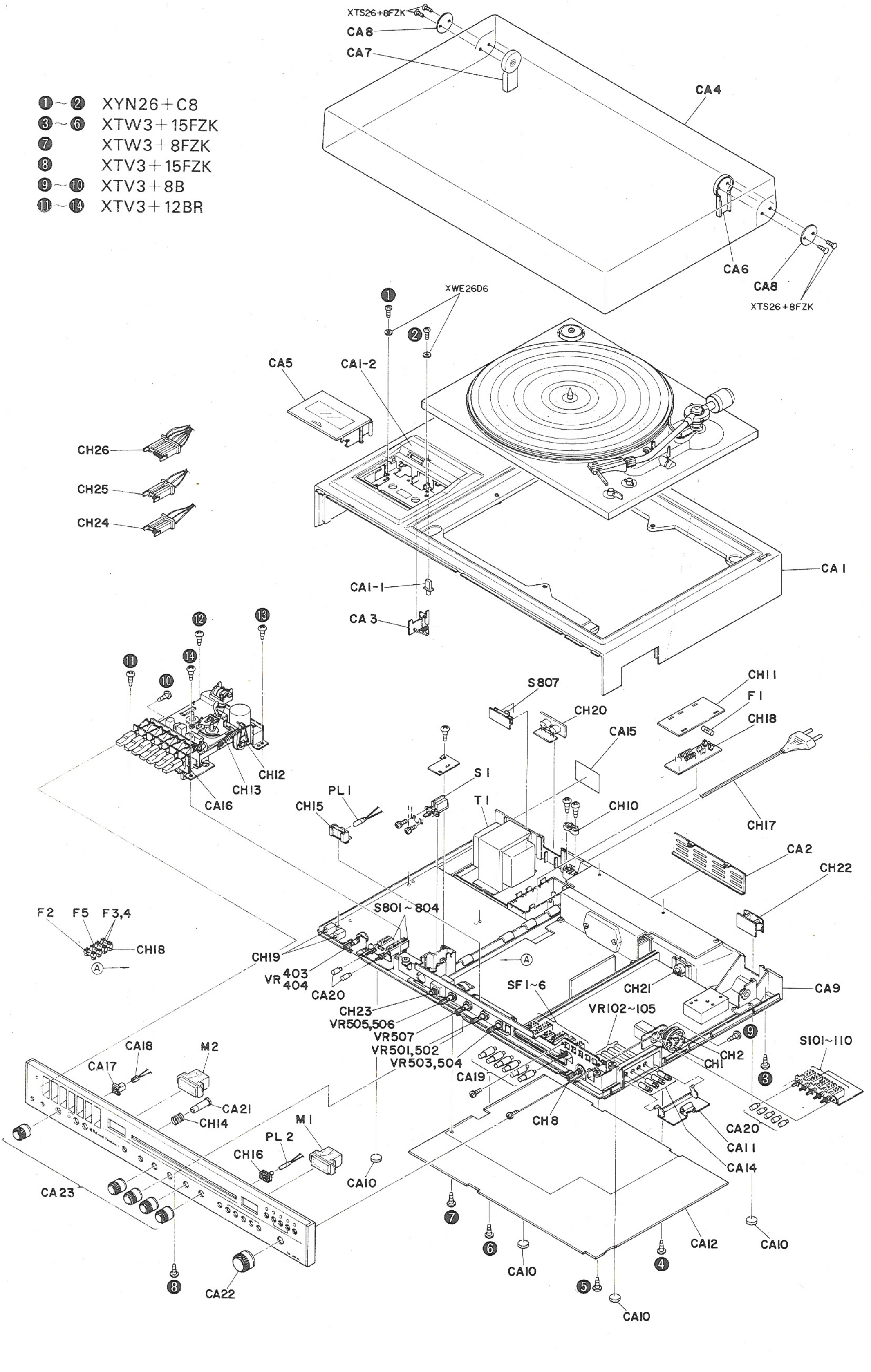

XTS26+8FZK
CA8
CA7
CA4
CA6
CA8
XTS26+8FZK
❶
XWE26D6
❷
CA5
CA1-2
CH26
CH25
CH24
CA1
CA1-1
CA3
⓬
⓭
⓮
⓫
❿
S807
CH20
CA15
CH11
F1
CH18
CH12
CH13
CA16
S1
PL1
CH15
T1
CH10
CH17
CA2
CH22
F2
F5
F3,4
CH18
Ⓐ
S801~804
CH19
VR 403 404
CA20
Ⓐ
SF1~6
CH21
CA9
CH23
VR505,506
VR507
VR501,502
VR503,504
VR102~105
CH2
❾
CH1
S101~110
❸
CA18
M2
CA17
CA21
CH14
CA19
CH8
CA20
CA11
M1
PL2
CH16
CA14
CA10
CA23
❼
CA12
CA10
❻
CA10
❹
❽
CA22
❺
CA10

FIG. 4

BLOCK DIAGRAM OF MODEL SG-3060L

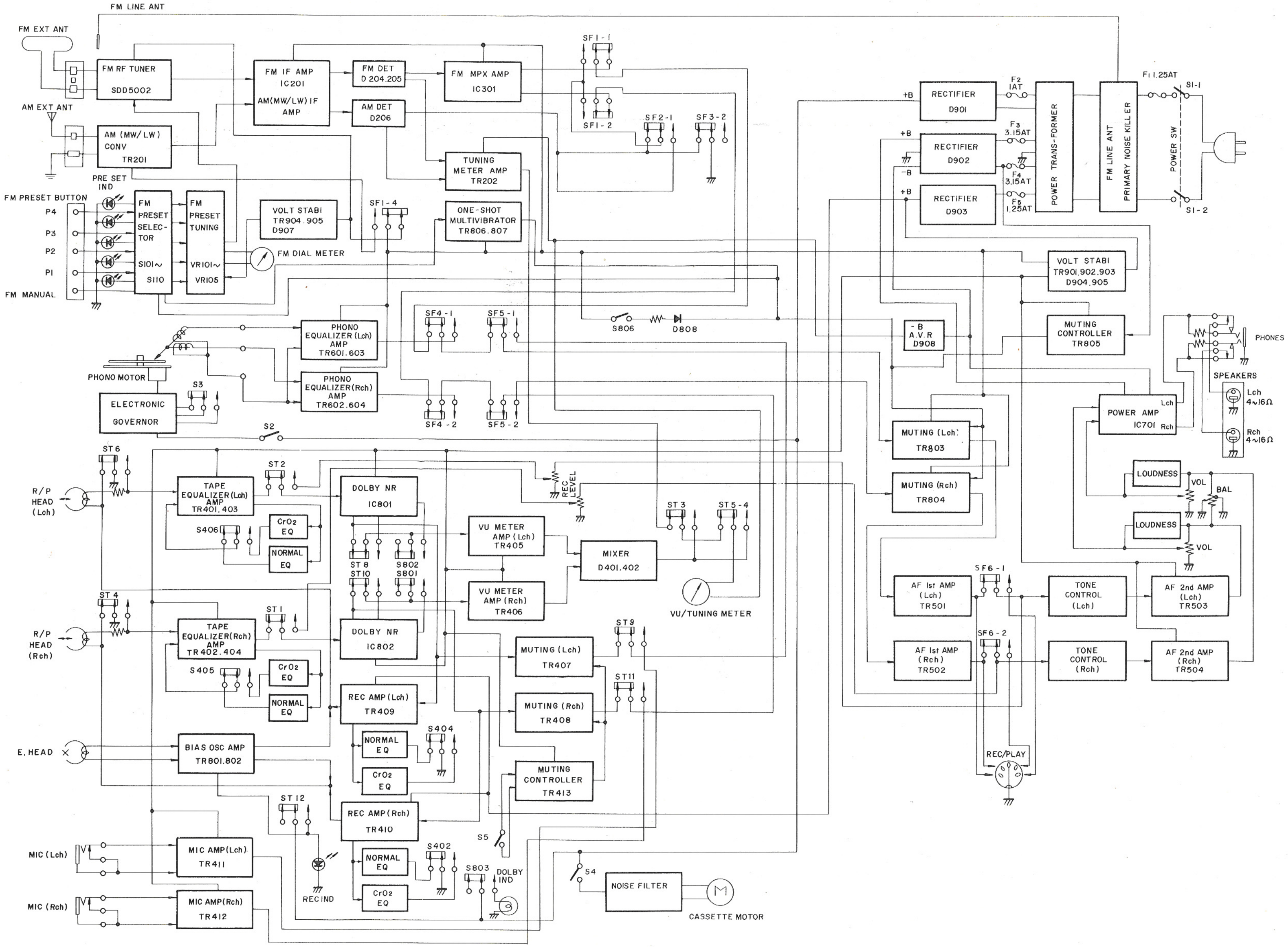

FM LINE ANT
FM EXT ANT
FM RF TUNER
SDD5002
AM EXT ANT
AM (MW/LW)
CONV
TR201
FM IF AMP
IC201
AM(MW/LW) IF
AMP
FM DET
D 204.205
AM DET
D206
FM MPX AMP
IC301
SF1-1
SF1-2
SF2-1
SF3-2
TUNING
METER AMP
TR202
ONE-SHOT
MULTIVIBRATOR
TR806.807
PRE SET
IND
FM PRESET BUTTON
P4
P3
P2
P1
FM MANUAL
FM
PRESET
SELEC-
TOR
S101~
S110
FM
PRESET
TUNING
VR101~
VR105
VOLT STABI
TR904.905
D907
SF1-4
FM DIAL METER
PHONO
EQUALIZER (Lch)
AMP
TR601.603
PHONO
EQUALIZER(Rch)
AMP
TR602.604
PHONO MOTOR
S3
ELECTRONIC
GOVERNOR
S2
SF4-1
SF5-1
SF4-2
SF5-2
S806
D808
+B
RECTIFIER
D901
RECTIFIER
D902
RECTIFIER
D903
-B
F2
1AT
F3
3.15AT
F4
3.15AT
F5
1.25AT
POWER TRANS-FORMER
FM LINE ANT
PRIMARY NOISE KILLER
F1 1.25AT
S1-1
POWER SW
S1-2
VOLT STABI
TR901.902.903
D904.905
-B
A.V.R
D908
MUTING
CONTROLLER
TR805
PHONES
SPEAKERS
Lch
4~16Ω
Rch
4~16Ω
POWER AMP
IC701
Lch
Rch
MUTING (Lch)
TR803
MUTING (Rch)
TR804
LOUDNESS
VOL
BAL
LOUDNESS
VOL
ST6
R/P
HEAD
(Lch)
ST2
TAPE
EQUALIZER(Lch)
AMP
TR401.403
S406
CrO2
EQ
NORMAL
EQ
DOLBY NR
IC801
REC
LEVEL
ST3
ST5-4
VU METER
AMP (Lch)
TR405
MIXER
D401.402
ST8
ST10
S802
S801
VU METER
AMP (Rch)
TR406
VU/TUNING METER
SF6-1
AF 1st AMP
(Lch)
TR501
TONE
CONTROL
(Lch)
AF 2nd AMP
(Lch)
TR503
ST4
R/P
HEAD
(Rch)
ST1
TAPE
EQUALIZER(Rch)
AMP
TR402.404
S405
CrO2
EQ
NORMAL
EQ
DOLBY NR
IC802
ST9
MUTING (Lch)
TR407
SF6-2
AF 1st AMP
(Rch)
TR502
TONE
CONTROL
(Rch)
AF 2nd AMP
(Rch)
TR504
REC AMP (Lch)
TR409
ST11
MUTING (Rch)
TR408
E. HEAD
BIAS OSC AMP
TR801.802
NORMAL
EQ
S404
CrO2
EQ
MUTING
CONTROLLER
TR413
REC/PLAY
ST12
REC AMP (Rch)
TR410
S5
MIC (Lch)
MIC AMP(Lch)
TR411
NORMAL
EQ
S402
S803
DOLBY
IND
S4
NOISE FILTER
REC IND
CrO2
EQ
MIC (Rch)
MIC AMP(Rch)
TR412
CASSETTE MOTOR

FIG. 5

DIAL CORD STRINGING GUIDE

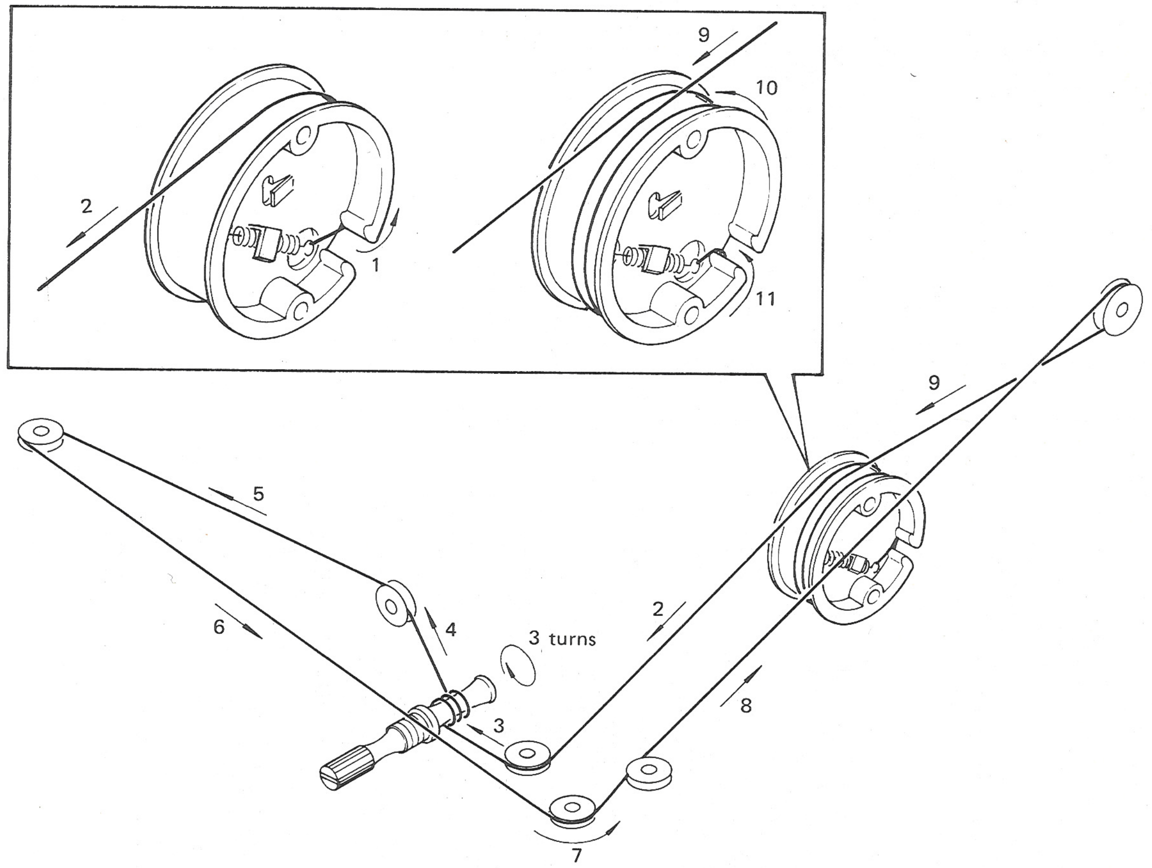

9
10
2
1
11
9
5
6
4
3 turns
2
3
8
7

FIG. 6

ALIGNMENT INSTRUCTIONS (RADIO) — 1

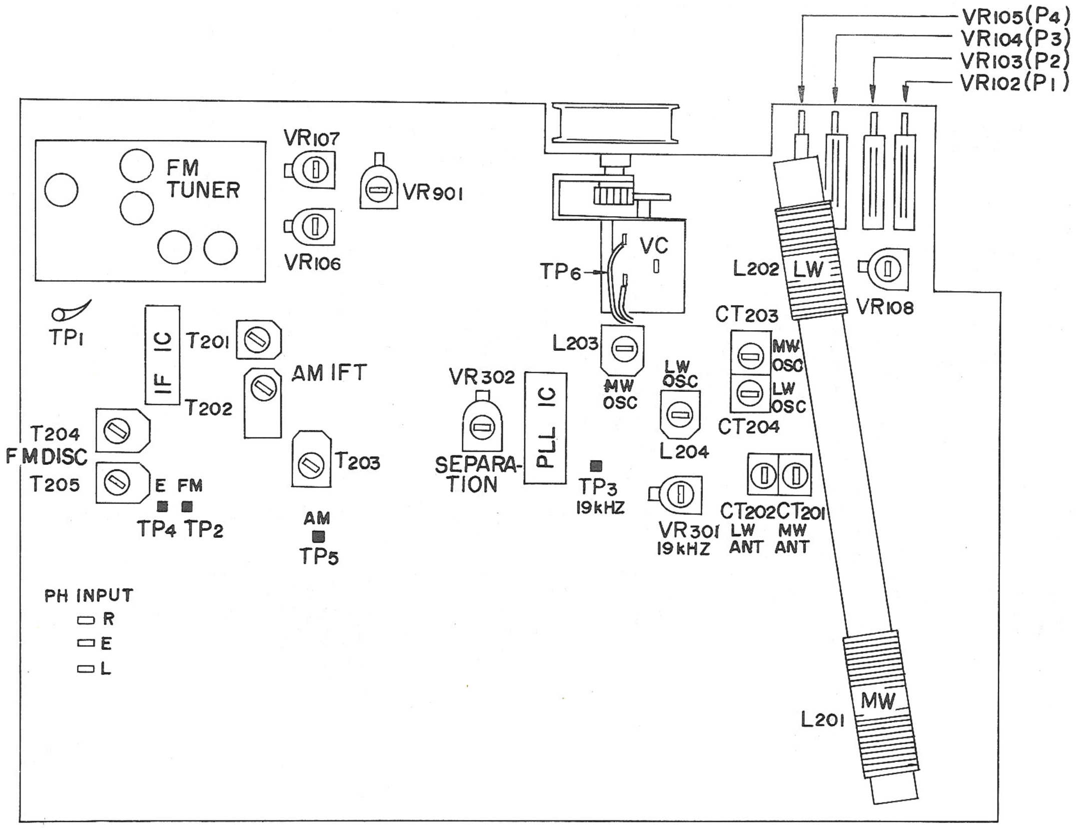

VR105(P4)
VR104(P3)
VR103(P2)
VR102(P1)
VR107
FM TUNER
VR901
VR106
VC
TP6
L202
LW
VR108
CT203
TP1
IF IC
T201
AM IFT
T202
L203
MW OSC
LW OSC
MW OSC
LW OSC
VR302
PLL IC
CT204
T204
FM DISC
T205
E FM
T203
SEPARATION
L204
TP3
19kHz
CT202 CT201
VR301
19kHz
LW ANT
MW ANT
TP4 TP2
AM
TP5
PH INPUT
R
E
L
MW
L201

FIG. 7

ALIGNMENT INSTRUCTIONS (RADIO) — 2

Notes:
1. Volume Control .... Maximum (AM-IF and RF, FM-RF)
   Minimum (FM-IF)
2. Bass and Treble Control .... Center
3. Balance Control............................ Center
4. Band Selector .... LW, MW, FM AUTO
5. Power Switch .... ON
6. Tape Monitor................................ Source
7. Output of signal generator should be no higher than necessary to obtain output reading.
8. Make certain that speaker system is connected to the tuner when aligning.

STEP	SIGNAL GENERATOR OR SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (VTVM or SCOPE)	ADJUST	REMARKS
	CONNECTION	FREQUENCY				
AM-IF and RF ALIGNMENT						
1	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455 kHz 30% Mod. with 400 Hz	Point of non-interference (on/about 600 kHz)	Output meter across speaker jack (L). (Imp. 4Ω)	T201 (AM 1st IFT) T203 (AM 2nd IFT)	Adjust for maximum output.
2 (LW)	Fashion loop of several turns of wire and radiate signal into loop of receiver.	145 kHz 30% Mod. with 400 Hz	145 kHz (11.88 mm)	Output meter across speaker jack (L). (Imp. 4Ω)	L204 (LW OSC Coil) L202 (LW ANT Coil)	Adjust for maximum output.
3 (LW)	Fashion loop of Several turns of wire, and radiate signal into loop of receiver.	350 kHz 30% Mod. with 400 Hz	350 kHz (166.38 mm)	Output meter across speaker jack (L). (Imp. 4Ω)	CT204 (LW OSC Trimmer) CT202 (LW ANT Trimmer)	Adjust for maximum output. Repeat steps (2) and (3).
4 (MW)	Fashion loop of several turns of wire and radiate signal into loop of receiver.	550 kHz 30% Mod. with 400 Hz	550 kHz (16.09 mm)	Output meter across speaker jack (L). (Imp. 4Ω)	L203 (MW OSC Coil) L201 (MW ANT Coil)	Adjust for maximum output by sliding coil L201 along ferrite core.
5 (MW)	Fashion loop of several turns of wire and radiate signal into loop of receiver.	1500 Hz 30% Mod. with 400 Hz	1500 kHz (161.08 mm)	Output meter across speaker jack (L). (Imp. 4Ω)	CT203 (MW OSC Trimmer) CT201 (MW ANT Trimmer)	Adjust for maximum output. Repeat steps (4) and (5).
Note: T202 is pre-aligned. Do not touch it.						
FM-IF and DETECTOR ALIGNMENT						
1	High side through 0.001 μF to point TP1. Common to chassis.	10.7 MHz (400 kHz SWP.)	Point of non-interference (on/about 98 MHz)	Connect vert amp. of scope to point TP2. Common to TP4.	T204 (FM Disc. IFT)	Adjust for maximum amplitude and symmetrical curve (Refer to Fig. 8)
2	High side through 0.001 μF to point TP1. Common to chassis.	10.7 MHz (400 kHz SWP).	Point of non-interference (on/about 98 MHz)	Connect vert. amp. of scope to point TP2. Common to TP4.	T205 (FM Disc. IFT)	Adjust for maximum amplitude and proper linearity between ±100 kHz markers. (Refer to Fig. 7)
Note: Before aligning step 1, turn the core of T205 fully counterclockwise.						

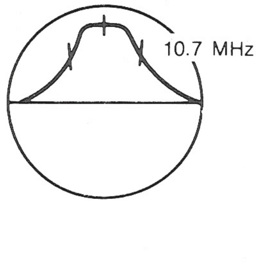


FIG. 8

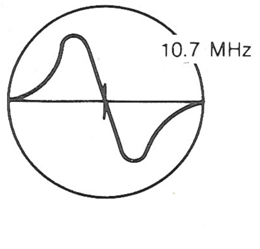


FIG. 9

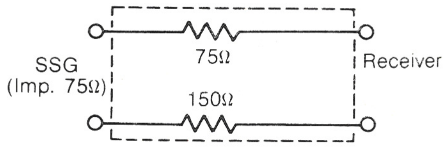
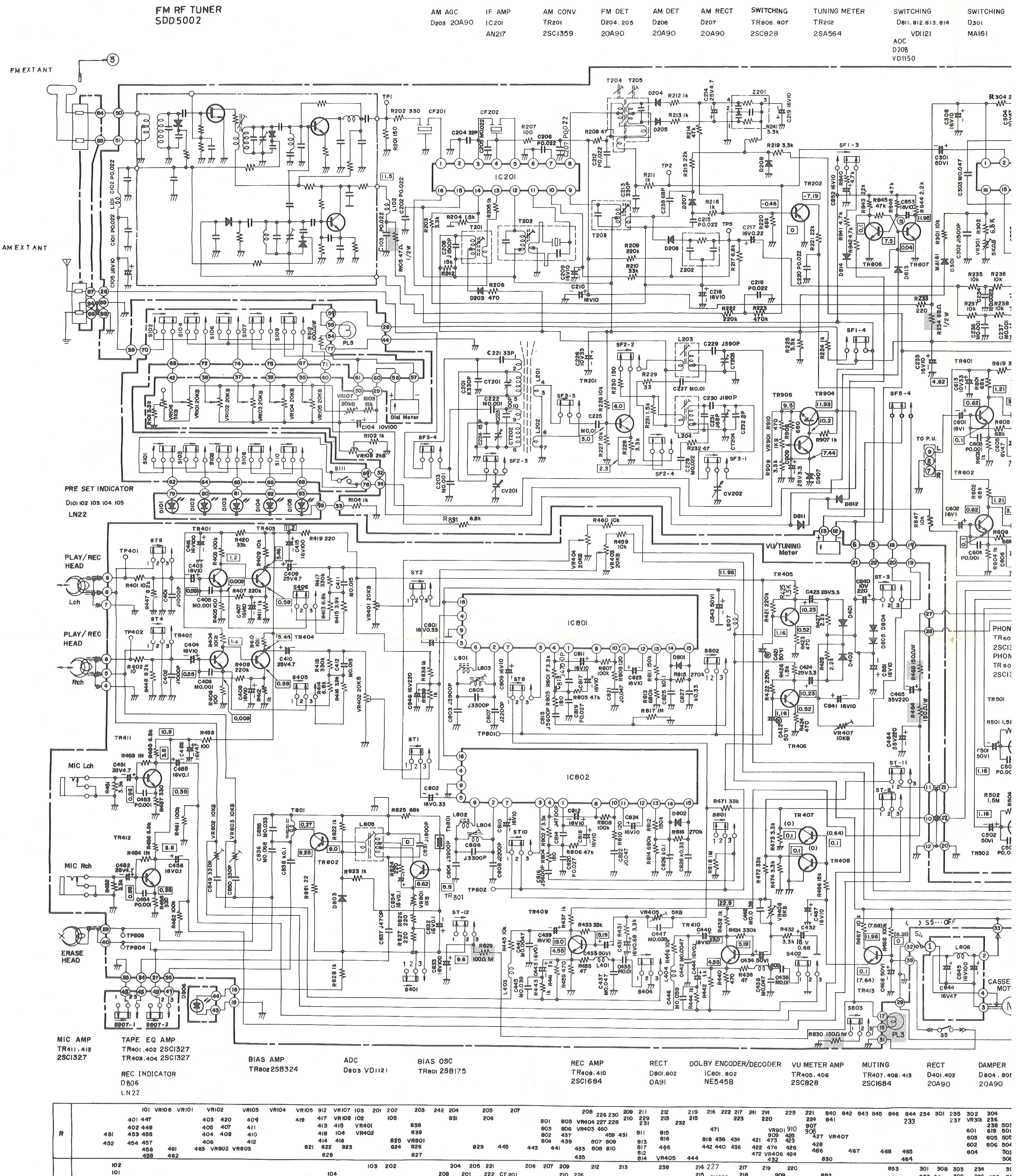

SSG
(Imp. 75Ω)
75Ω
150Ω
Receiver

FIG. 10

SCHEMATIC DIAGRAM OF


FM RF TUNER
SDD5002
AM AGC
D203 20A90
IF AMP
IC201
AN217
AM CONV
TR201
2SC1359
FM DET
D204. 205
20A90
AM DET
D206
20A90
AM RECT
D207
20A90
SWITCHING
TR806. 807
2SC828
TUNING METER
TR202
2SA564
SWITCHING
D811. 812. 813. 814
VD1121
AOC
D208
VD1150
SWITCHING
D301
MA161
FM EXT ANT
AM EXT ANT
PL5
Dial Meter
PRE SET INDICATOR
D101 102 103 104 105
LN22
PLAY/REC HEAD
Lch
Rch
MIC Lch
MIC Rch
ERASE HEAD
VU/TUNING Meter
IC801
IC802
TO P.U.
PL3
CASSETTE MOTOR
S5 ... OFF
MIC AMP
TR411. 412
2SC1327
TAPE EQ AMP
TR401. 402 2SC1327
TR403. 404 2SC1327
REC INDICATOR
D806
LN22
BIAS AMP
TR802 2SB324
ADC
D803 VD1121
BIAS OSC
TR801 2SB175
REC AMP
TR409. 410
2SC1684
RECT
D801. 802
OA91
DOLBY ENCODER/DECODER
IC801. 802
NE545B
VU METER AMP
TR405. 406
2SC828
MUTING
TR407. 408. 413
2SC1684
RECT
D401. 402
20A90
DAMPER
D804. 805
20A90

R	101 VR106 VR101 VR102 VR103 VR104 VR105 912 VR107 103 201 202 203 242 204 205 207 208 226 230 209 211 212 219 216 222 217 241 214 225 221 840 842 843 845 846 844 234 301 235 302 304 401 447 403 420 409 419 417 VR108 102 105 831 206 801 805 VR404 227 228 210 229 213 215 223 220 224 841 233 237 VR301 236 402 448 405 407 411 413 415 VR401 838 803 806 VR403 460 231 232 471 VR901 910 907 908 238 503 451 453 455 404 408 410 418 104 VR402 839 802 437 459 431 811 815 909 425 427 VR407 601 619 501 452 454 457 406 412 414 416 825 VR801 804 439 807 809 813 816 818 436 434 421 473 423 428 603 605 505 456 461 463 VR802 VR803 821 822 823 824 826 829 445 443 441 433 808 810 817 446 442 440 436 422 474 426 466 467 468 465 602 606 504 458 462 828 827 435 812 814 VR405 444 472 VR406 424 432 830 464 604 502 506
C	102 103 202 204 205 221 206 207 209 212 213 238 214 227 217 219 220 853 301 308 303 234 101 104 208 201 222 CT201 210 226 215 CV202 218 909 852 233 237 302 236 237 106 401 416 407 415 411 203 224 223 CT202 225 229 216 CT203 232 423 841 465 601 613 501 605 451 453 402 403 405 849 850 408 409 412 846 801 CV201 813 811 228 230 840 464 602 603 503 606 452 454 455 404 406 410 802 803 805 807 809 815 819 817 821 823 231 CT204 421 422 424 851 468 456 466 835 838 832 804 806 808 810 441 443 816 814 812 433 822 824 447 825 827 440 843 448 467 844 845 604 502 836 837 834 831 833 445 439 820 818 437 431 826 828 442 444 434 432 504 435 446 438 436
L	101 102 801 803 403 401 203 805 802 804 201 202 404 204 807 402 806
T	601 201 202 203 204 205
SW	102 104 106 107 109 406 111 SF3-4 SF2-3 SF3-3 SF2-2 SF2-4 SF3-1 SF1-3 SF5-4 101 103 105 108 110 405 ST2 802 SF1-4 ST3 ST6 ST1 ST8 801 ST11 S4 S5 ST4 401 ST12 ST10 404 402 803 ST9 807-1 807-2

* This diagram might be modified without notice for further development of technology.

OF MODEL SG-3060L

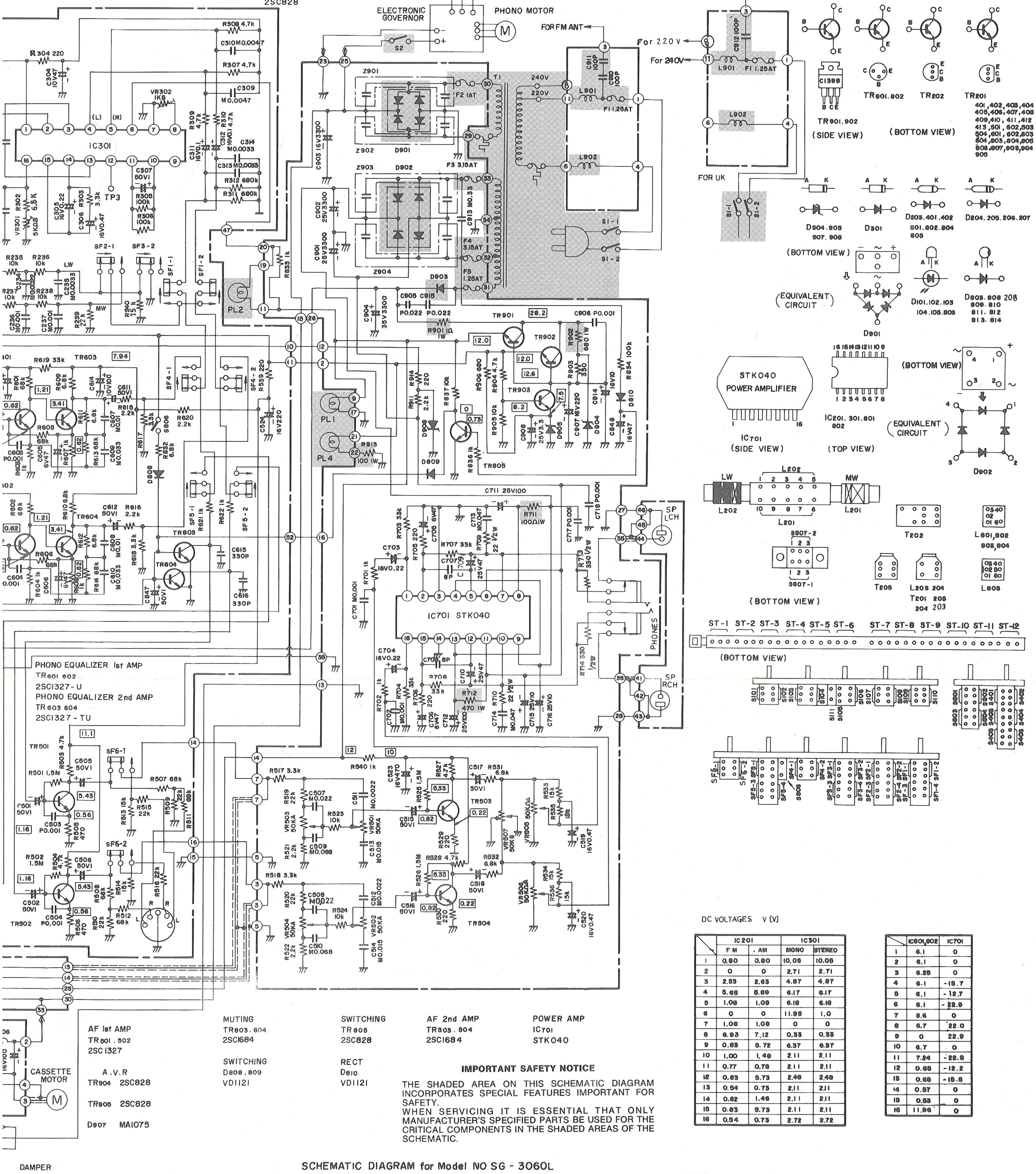
SWITCHING
D301
MA161

MPX DECODER
IC301 LA3350A

A.V.R
D904 MA1130
D905 MA1075
TR901.902
2SC1398
TR903
2SC828

RECT
D901 SIRBA10
D902 S5VB20
D903 10E1

A.V.R
D908 MA1075


ELECTRONIC GOVERNOR
PHONO MOTOR
S3
S2
FOR FM ANT
For 220V
For 240V
FOR UK
F1 1.25AT
F2 1AT
F3 3.15AT
F4 3.15AT
F5 1.25AT
Z901
Z902
Z903
Z904
D901
D902
D903
T1
L901
L902
S1-1
S1-2
IC301
PL1
PL2
PL4
TR901
TR902
TR903
TR603
TR604
TR803
TR804
TR805
TR501
TR502
TR503
TR504
IC701 STK040
PHONES
SP LCH
SP RCH
CASSETTE MOTOR
TR901.902
(SIDE VIEW)
TR801.802
TR202
TR201
401,402,403,404
405,406,407,408
409,410,411,412
413,501,502,503
504,601,602,603
604,803,804,805
806,807,808,904
905
(BOTTOM VIEW)
D904.905
907.908
D301
D203.401.402
801.802.804
805
D204.205.206.207
(BOTTOM VIEW)
(EQUIVALENT CIRCUIT)
D901
D101.102.103
104.105.806
D803.808 208
809.810
811.812
813.814
STK040
POWER AMPLIFIER
IC701
(SIDE VIEW)
IC201.301.801
802
(TOP VIEW)
(BOTTOM VIEW)
(EQUIVALENT CIRCUIT)
D902
LW
MW
L202
L201
L202
T202
L801,802
803,804
S807-2
S807-1
T203
L203 204
T201 205
204 203
L805
(BOTTOM VIEW)
ST-1 ST-2 ST-3 ST-4 ST-5 ST-6 ST-7 ST-8 ST-9 ST-10 ST-11 ST-12
(BOTTOM VIEW)

PHONO EQUALIZER 1st AMP
TR601 602
2SC1327-U
PHONO EQUALIZER 2nd AMP
TR603 604
2SC1327-TU

AF 1st AMP
TR501.502
2SC1327

A.V.R
TR904 2SC828

TR905 2SC828

D907 MA1075

MUTING
TR803.804
2SC1684

SWITCHING
D808.809
VD1121

SWITCHING
TR806
2SC828

RECT
D810
VD1121

AF 2nd AMP
TR503.504
2SC1684

POWER AMP
IC701
STK040

IMPORTANT SAFETY NOTICE

THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR SAFETY.
WHEN SERVICING IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.

DAMPER
D804.805
20A90

SCHEMATIC DIAGRAM for Model NO SG - 3060L

DC VOLTAGES V (V)

	IC201		IC301	
	FM	AM	MONO	STEREO
1	0.80	0.80	10.06	10.06
2	0	0	2.71	2.71
3	2.53	2.63	4.87	4.87
4	5.66	5.69	6.17	6.17
5	1.08	1.08	6.18	6.18
6	0	0	11.96	1.0
7	1.08	1.08	0	0
8	6.93	7.12	0.33	0.33
9	0.83	5.72	6.37	6.37
10	1.00	1.48	2.11	2.11
11	0.77	0.78	2.11	2.11
12	0.83	5.73	2.48	2.48
13	0.54	0.73	2.11	2.11
14	0.82	1.46	2.11	2.11
15	0.83	5.73	2.11	2.11
16	0.54	0.73	2.72	2.72

	IC801,802	IC701
1	6.1	0
2	6.1	0
3	6.26	0
4	6.1	-15.7
5	6.1	-12.7
6	6.1	-22.9
7	5.6	0
8	6.7	22.0
9	0	22.9
10	6.7	0
11	7.24	-22.8
12	0.65	-12.2
13	0.65	-15.8
14	0.57	0
15	0.83	0
16	11.96	0

302 304 303 305 VR302 309 310 308 833
VR301 236 239 306 307 539
238 503 240 312
601 619 501 609 611 615 617 832 620 311 519 913 703 914 901 707 836 709 905 VR505 535 903 714
603 605 505 607 613 616 618 VR503 701 702 704 911 712
602 606 504 610 612 507 621 622 517 521 523 540 705 708 527 710 VR506 534
604 502 608 614 508 513 515 509 518 520 VR504 524 VR501 706 525 529 VR507 531 536
506 510 512 514 516 511 522 VR502 526 528 530 532
837 906 904 711 533 902 713 834

234 304 306 307 311 312 310 903 904 905 915 913 718 910 911
236 237 305 309 902 701 703 705 707 709 713 908 907 717 914 848
613 501 608 235 614 611 847 314 524 901 511 704 706 708 710 711 715 716 906
603 503 606 607 612 507
505 313 509 513 523 515 712 517 714 519
604 502 506 608 615 508 512 702 516 518 520
504 610 609 616 510 514

806 901
902

1

SF1-1 SF1-2 S2 S3 S1-1
SF2-1 SF3-2 SF4-1 SF4-2 S1-2
SF6-1 806 SF5-1 SF5-2
SF6-2

NOTES

1) S1 POWER SWITCH IN "OFF" POSITION
S2 PHONO MOTOR SWITCH IN "OFF" POSITION
S3 PHONO SPEED SELECTOR IN 33RPM POSITION
S4 TAPE MOTOR SWITCH IN "OFF" POSITION
S5 PLAYBACK SWITCH IN "OFF" POSITION
SF6-1 SF6-2 TAPE MONITOR SWITCH IN "SOURCE" POSITION
S101~S110 PRE SET SELECTOR SWITCH IN "MANUAL" POSITION
S401~S406 TAPE SELECTOR SWITCH IN "NORMAL" POSITION
S801~S804 DOLBY NR SWITCH IN "OUT" POSITION
S805~S806 MUTING SWITCH IN "OFF" POSITION
S807-1.S807-2 WHISTLE DEFEAT SWITCH IN "A" POSITION
ST-1~ST-12 REC SWITCH IN "PLAY" POSITION
SF1-1~SF1-4 FUNCTION FM AUTO SWITCH IN "ON" POSITION
SF2-1~SF2-4 FUNCTION MW SWITCH IN "OFF" POSITION
SF3-1~SF3-4 FUNCTION LW SWITCH IN "OFF" POSITION
SF4-1~SF4-2 FUNCTION PHONO SWITCH IN "OFF" POSITION
SF5-1~SF5-4 FUNCTION TAPE SWITCH IN "OFF" POSITION

2) Letters M, P, K, & J indicate tolerance of capacitors as follows

$M = \pm 20\%$ $P = {}^{+100}_{-0}\%$ $K = \pm 10\%$ $J = \pm 5\%$

3) DC Voltages are to be measured with VTVM under no signal condition in AM or FM position

WIRING DIAGRAM OF M

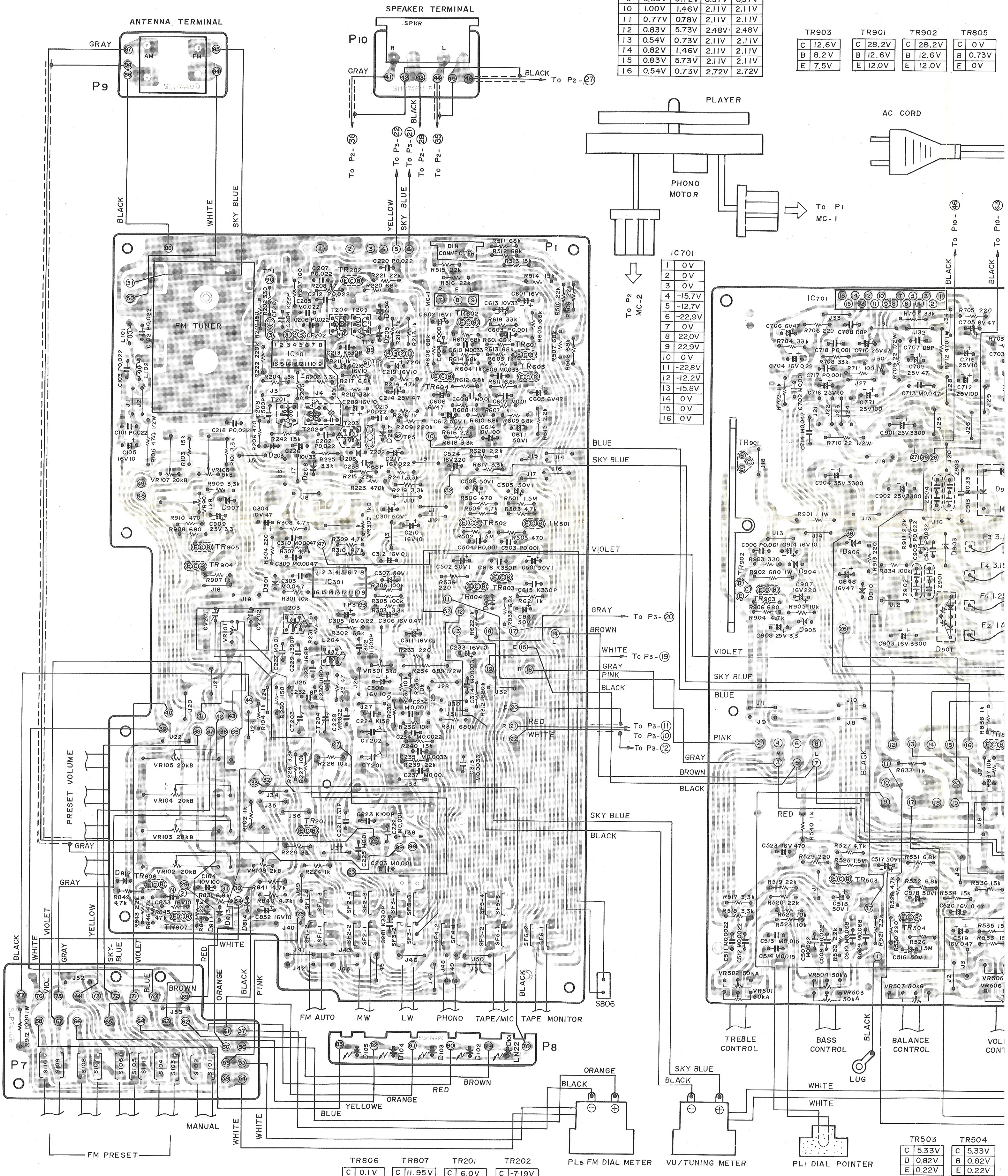
	TR601	TR602	TR603	TR501	TR502
C	1.21V	1.21V	3.41V	5.43V	5.43V
B	0.62V	0.62V	1.21V	1.16V	1.16V
E	0.1V	0.1V	0.62V	0.56V	0.56V

	TR604	TR904	TR905	TR803	TR804
C	3.41V	11.93V	10.2V	—	—
B	1.21V	10.2V	—	—	—
E	0.62V	9.5V	7.44V	—	—

	IC201		IC301	
	FM	AM	MONO	STEREO
1	0.80V	0.80V	10.05V	10.05V
2	0 V	0 V	2.71V	2.71V
3	2.53V	2.63V	4.87V	4.87V
4	5.65V	5.89V	6.17V	6.17V
5	1.08V	1.08V	6.18V	6.18V
6	0 V	0V	11.95V	1.0V
7	1.08V	1.08V	0V	0V
8	6.93V	7.12V	0.33V	0.33V
9	0.83V	5.72V	6.37V	6.37V
10	1.00V	1.46V	2.11V	2.11V
11	0.77V	0.78V	2.11V	2.11V
12	0.83V	5.73V	2.48V	2.48V
13	0.54V	0.73V	2.11V	2.11V
14	0.82V	1.46V	2.11V	2.11V
15	0.83V	5.73V	2.11V	2.11V
16	0.54V	0.73V	2.72V	2.72V

	TR903	TR901	TR902	TR805
C	12.6V	28.2V	28.2V	0V
B	8.2V	12.6V	12.6V	0.73V
E	7.5V	12.0V	12.0V	0V

IC701	
1	0V
2	0V
3	0V
4	-15.7V
5	-12.7V
6	-22.9V
7	0V
8	22.0V
9	22.9V
10	0V
11	-22.8V
12	-12.2V
13	-15.8V
14	0V
15	0V
16	0V



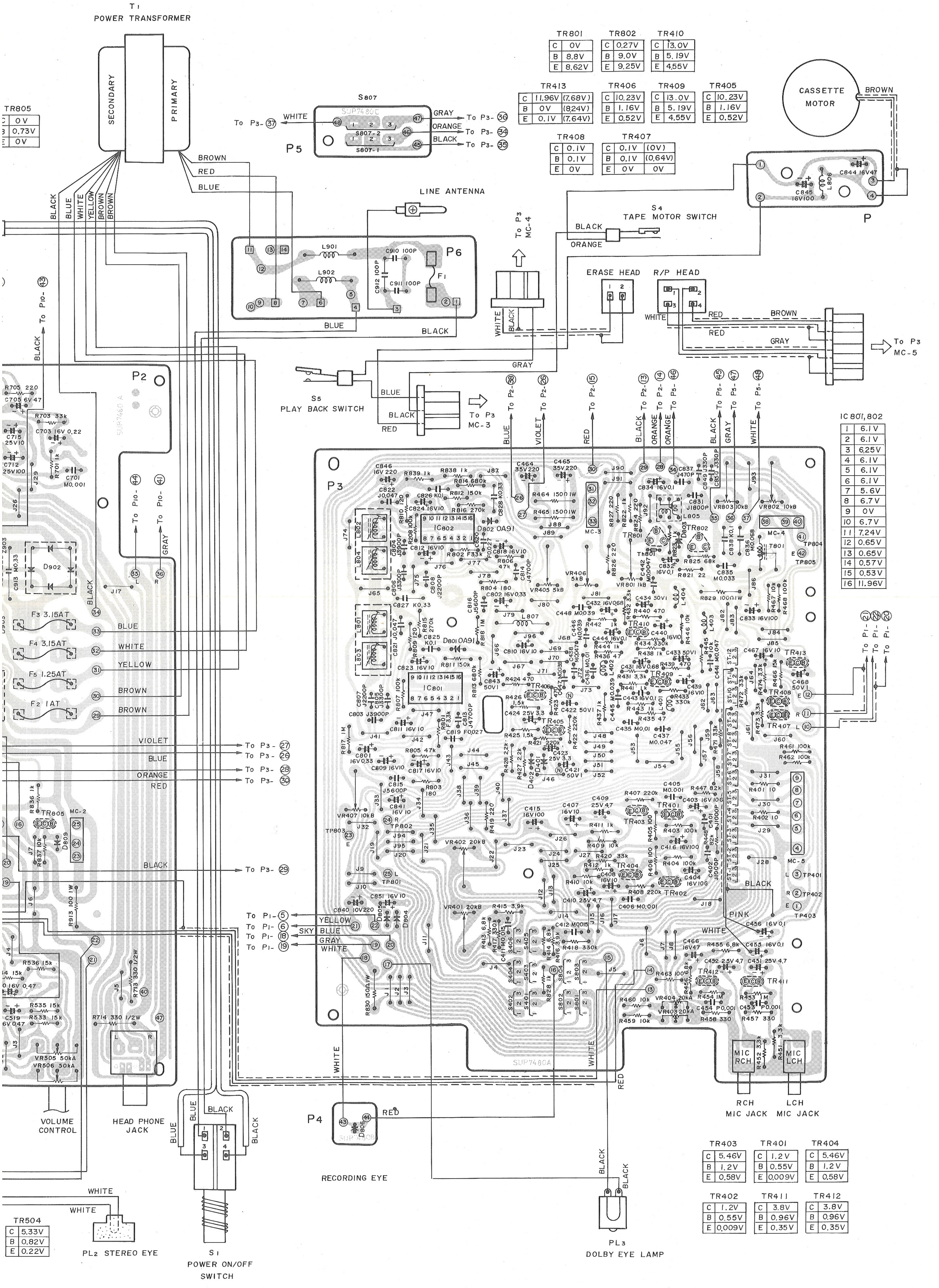
ANTENNA TERMINAL
AM
FM
P9
GRAY
SPEAKER TERMINAL
SPKR
P10
R
L
BLACK
To P2-㉗
To P2-㊱
To P3-㉒
To P3-㉑
To P2-㉝
To P2-㉟
YELLOW
SKY BLUE
PLAYER
PHONO MOTOR
To P1 MC-1
To P2 MC-2
AC CORD
To P10-㊻
To P10-㊸
BLACK
WHITE
SKY BLUE
P1
FM TUNER
DIN CONNECTER
IC201
IC301
IC701
BLUE
SKY BLUE
VIOLET
GRAY
BROWN
WHITE
PINK
To P3-⑳
To P3-⑲
To P3-⑪
To P3-⑩
To P3-⑫
RED
PRESET VOLUME
VR105 20kB
VR104 20kB
VR103 20kB
VR102 20kB
P7
S110
S109
S108
S107
S106
S111
S104
S103
S101
P8
D105
D104
D103
D102
D101
FM AUTO
MW
LW
PHONO
TAPE/MIC
TAPE MONITOR
S806
ORANGE
YELLOWE
TREBLE CONTROL
BASS CONTROL
BALANCE CONTROL
LUG
PL5 FM DIAL METER
VU/TUNING METER
PL1 DIAL POINTER
MANUAL
FM PRESET

	TR806	TR807	TR201	TR202
C	0.1V	11.95V	6.0V	-7.19V
B	7.5V	0.04V	3.0V	-0.46V
E	0V	0V	2.3V	0V

	TR503	TR504
C	5.33V	5.33V
B	0.82V	0.82V
E	0.22V	0.22V

* This diagram might be modified without notice for further development of technology.

F MODEL SG-3060L



T1
POWER TRANSFORMER
SECONDARY
PRIMARY
S807
P5
P6
LINE ANTENNA
F1
L901
L902
S4
TAPE MOTOR SWITCH
CASSETTE MOTOR
P
ERASE HEAD
R/P HEAD
S5
PLAY BACK SWITCH
P2
P3
IC801
IC802
P4
RECORDING EYE
PL2 STEREO EYE
S1
POWER ON/OFF SWITCH
PL3
DOLBY EYE LAMP
VOLUME CONTROL
HEAD PHONE JACK
RCH MIC JACK
LCH MIC JACK
F2 1AT
F3 3.15AT
F4 3.15AT
F5 1.25AT
D902
To P3 MC-3
To P3 MC-4
To P3 MC-5

TR805

	0V
3	0.73V
	0V

TR801

C	0V
B	8.8V
E	8.62V

TR802

C	0.27V
B	9.0V
E	9.25V

TR410

C	13.0V
B	5.19V
E	4.55V

TR413

C	11.96V	(7.68V)
B	0V	(8.24V)
E	0.1V	(7.64V)

TR406

C	10.23V
B	1.16V
E	0.52V

TR409

C	13.0V
B	5.19V
E	4.55V

TR405

C	10.23V
B	1.16V
E	0.52V

TR408

C	0.1V
B	0.1V
E	0V

TR407

C	0.1V	(0V)
B	0.1V	(0.64V)
E	0V	0V

IC 801, 802

1	6.1V
2	6.1V
3	6.25V
4	6.1V
5	6.1V
6	6.1V
7	5.6V
8	6.7V
9	0V
10	6.7V
11	7.24V
12	0.65V
13	0.65V
14	0.57V
15	0.53V
16	11.96V

TR403

C	5.46V
B	1.2V
E	0.58V

TR401

C	1.2V
B	0.55V
E	0.009V

TR404

C	5.46V
B	1.2V
E	0.58V

TR402

C	1.2V
B	0.55V
E	0.009V

TR411

C	3.8V
B	0.96V
E	0.35V

TR412

C	3.8V
B	0.96V
E	0.35V

TR504

C	5.33V
B	0.82V
E	0.22V

ALIGNMENT INSTRUCTIONS (RADIO)—3

■ FM RF ALIGNMENT

Notes:
1. Volume Control .... Maximum
2. Bass and Treble Control .... Center
3. Balance Control............................ Center
4. Band Selector .... FM AUTO
5. FM Preset Button.......................... MANUAL, P1, P2, P3, P4
6. FM Preset VR (VR102 ~ 105)...... Turn them fully counterclockwise.

STEP	SIGNAL GENERATOR		RADIO DIAL SETTING	INDICATOR (VTVM or SCOPE)	FM PRESET BUTTON	ADJUST	REMARKS
	CONNECTION	FREQUENCY					
1	Connect to EXT. FM antenna terminal through dummy antenna. (Refer to Fig. 10)	106 MHz 30% Mod. with 400 Hz	106 MHz (162.18 mm)	Output meter across speaker jack (L) (Imp. 4Ω)	MANUAL	VR901	Adjust for maximum output.
2	Connect to EXT. FM antenna terminal through dummy antenna. (Refer to Fig. 10)	90 MHz 30% Mod. with 400 Hz	90 MHz (23.77 mm)	Output meter across speaker jack (L) (Imp. 4Ω)	MANUAL	VR106	Adjust for maximum output.
3	Connect to EXT. FM antenna terminal through dummy antenna. (Refer to Fig. 10)	87.40 MHz 30% Mod. with 400 Hz	Turn them fully counter clockwise.	Output meter across speaker jack (L) (Imp. 4Ω)	P1	VR108	Adjust for maximum output. Repeat step (2).
4	Connect to EXT. FM antenna terminal through dummy antenna. (Refer to Fig. 10)	106 MHz 30% Mod. with 400 Hz	106 MHz	Output meter across speaker jack (L) (Imp. 4Ω)	P1	VR102	Adjust for maximum output.
5	Connect to EXT. FM antenna terminal through dummy antenna. (Refer to Fig. 10)	106 MHz 30% Mod. with 400 Hz	106 MHz	FM Dial Meter	P1	VR107	Adjust for 106 MHz indication reading on meter. Repeat steps (1)~(4).

Notes: 1. Before aligning step 1, turn the cores of VR106, VR107, VR108, and VR901 center.
2. FM Tuner is pre-aligned. Do not touch it.
Caution: To correct FM band coverage (87.5 ~ 108 MHz), adjust VR106, VR107, VR108 and VR901.

■ FM STEREO ALIGNMENT

Notes:
1. Volume Control .... Audible level of speaker sound
2. Treble Control .... MIN
3. Bass Control................................. Center
4. Band Selector .... FM AUTO
5. Balance Control............................ Center
6. FM Preset Button.......................... MANUAL

EQUIPMENT CONNECTION	ADJUST	REMARKS
Connect frequency counter to TP3 and TP4 at no signal condition.	VR301 (VCO)	Adjust VR301 for 19 kHz ± 100 Hz on frequency counter reading.

SEPARATION ALIGNMENT

Notes:
1. Stereo Modulator: Connect Stereo Modulator to EXT. Mod. terminal of signal generator.
2. Signal Generator: Modulation Rate of 19 kHz Pilot Signal 10%
   Modulation Rate of Right and Left Signal 27%
   Output Level.. 60 dB
3. Tuner (Balance Control): Adjust balance control so that output level from both channels becomes equal.

EQUIPMENT CONNECTION			ADJUST	REMARKS
SIGNAL GENERATOR	VTVM	OSCILLOSCOPE		
Connect to EXT. FM antenna terminal through dummy antenna. (Refer to Fig. 10)	Connect across speaker jack. (Imp. 4Ω)	Connect vertical amp. input of scope to terminals of VTVM.	VR302 (Separation Control)	Adjust VR302 for minimum indication of VTVM from the left side output when the right side of stereo modulator is modulated. Adjust VR302 in the same way for the right side. Adjust for best balance between "L to R" and "R to L" separation.

Note: When aligning separation, disconnect frequency counter.

ALIGNMENT INSTRUCTIONS (CASSETTE PLAYER/RECORDER)

Notes:
1. Function Selector .... TAPE
2. Balance Control............................ Center
3. Depress push buttons PLAY and REC at the same time. (Be sure to release the record safety lever manually.
4. Dolby Switch .... OUT

STEP	CIRCUITS	VTVM CONNECTION	TAPE SELECTOR	ADJUSTMENT	REMARKS
1	AC BIAS CIRCUIT	Connect positive side to TP804 (+) and negative side to TP805 (−). (Refer to Fig. 11)	Bias SW: Normal	L805	Adjust L805 for maximum indication on VTVM.
2	AC BIAS CIRCUIT	Connect positive side to TP804 and negative side to TP805. (Refer to Fig. 11)	Bias SW: CrO_2	VR801	Adjust VR801 for 12V reading on VTVM.
3	AC BIAS CIRCUIT	Connect positive side to TP401 and negative side to TP403. (Refer to Fig. 11) Connect positive side to TP402 and negative side to TP403 (Refer to Fig. 11)	Bias SW: Normal	VR803 VR802	Adjust VR803 and VR802 for 3.3 mV reading on VTVM.
4	19 kHz TRAP CIRCUIT	Connect positive side to TP801 and negative side to TP803(E). (Refer to Fig. 11) Connect positive side to TP802 and negative side to TP803(E). (Refer to Fig. 11)	EQ SW: Normal	L803 L804	Push Tape Monitor SW to Ext Tape and Dolby SW to IN. Apply audio signal (300 mV, 19 kHz) to both L-ch and R-ch Ext Tape terminals. Adjust L803 and L804 for minimum indication on VTVM.
5	DOLBY CIRCUIT	Connect positive side to TP801 and negative side to TP803. (Refer to Fig. 11) Connect positive side to TP802 and negative side to TP803. (Refer to Fig. 11)	EQ SW: Normal	VR401 VR402	Turn Dolby SW to IN and playback a test tape (MTT-150). Adjust VR401 and VR402 for 580 mV reading on VTVM.
6	VU METER CIRCUIT	....	EQ SW: Normal	VR407	Turn Dolby SW to IN and playback a test tape (MTT-150). Adjust VR407 so that needle rests at +3 dB (ᗡᗞ mark) as shown in Fig. 12.
7	REC CURRENT CIRCUIT	Connect positive side to TP401 and negative side to TP403. (Refer to Fig. 11) Connect positive side to TP402 and negative side to TP403. (Refer to Fig. 11)	EQ SW: Normal	VR405 VR406	Connect TP804 to TP805. Push Tape Monitor SW to Ext Tape and Dolby SW to IN. Apply 1 kHz audio signal to both Ext Tape terminals and set body REC VR's at **+3 dB** (ᗡᗞ mark) on VU meter. Adjust VR405 and VR406 for 0.67 mV reading on VTVM.

Notes: 1. Do not touch R/P Head and Erase Head when aligning.
2. L801 and L802 are pre-aligned. Do not touch them.
3. MTT-150 is DOLBY LEVEL calibration tape.

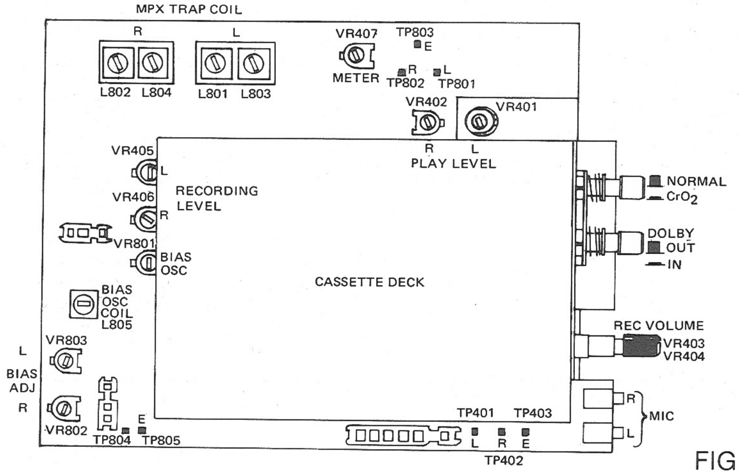


FIG. 11

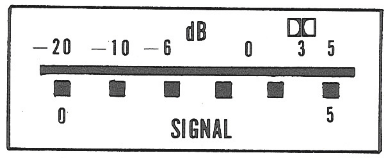


FIG. 12

RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT

Playback a Standard Alignment Tape and turn Azimuth Adjusting Screw for maximum loudness.

*** Test Tape (6.3 kHz)**
VTT-652 or Equivalent

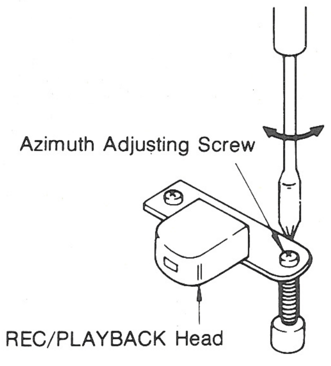


FIG. 13

MECHANICAL ADJUSTMENT OF TAPE PLAYER/RECORDER

PRESSURE ROLLER ADJUSTMENT

1. Switch set to PLAY. (Do not insert cassette.)
2. Hook Spring gauge to arm pressure rollers, as shown in Fig. 14.
3. Pull pressure roller away from the capstan in the direction of arrow 1 with spring gauge and slowly permit the pressure roller to return forward capstan in the direction of arrow 2.
4. Measure tension at time when pressure roller makes contact with capstan (or when pressure roller starts rotating.)
5. The standard tension of pressure roller should be 250 ~ 380 g.
6. If pressure is not within these limits;
   Clean the rubber roller and capstan with a soft cloth moistened with alcohol or replace pressure spring.

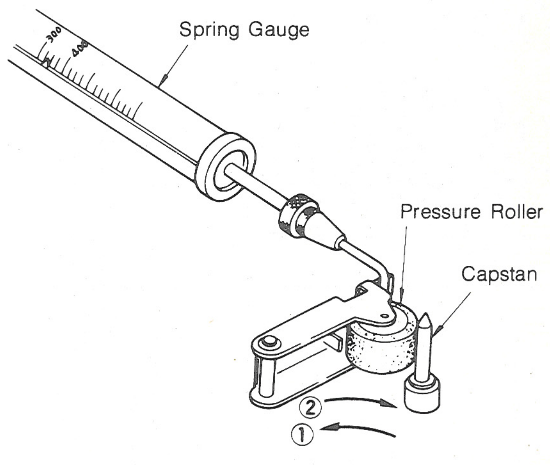

Spring Gauge
Pressure Roller
Capstan
②
①

FIG. 14

TAKE-UP TORQUE ADJUSTMENT

* Test Tape: SRK-CT (Take-up Torque Meter)
1. Insert test tape.
2. Rewind the tape to its starting point.
3. Switch set to PLAY.
4. Read "▸" mark of indicator on take-up side, as shown in Fig. 15.
5. Repeat PLAY-STOP several times and read the average tension.
6. The standard take-up tension should be 30 ~ 70 g.cm.
   If take-up tension is not within these limits;
   a) Clean main belt, take-up reel and all parts which contact them with a cotton swab moistened with alcohol, and/or
   b) Switch set to "OFF", remove main belt and make sure that take-up reel and take-up clutch are rotating smoothly.
   c) Change take-up clutch tension by turning the friction spring under reel table, as shown in Fig. 16, and/or
   d) Replace take-up clutch.

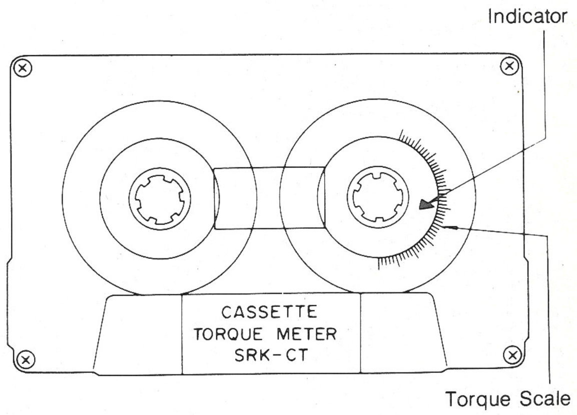

Indicator
CASSETTE
TORQUE METER
SRK-CT
Torque Scale

FIG. 15

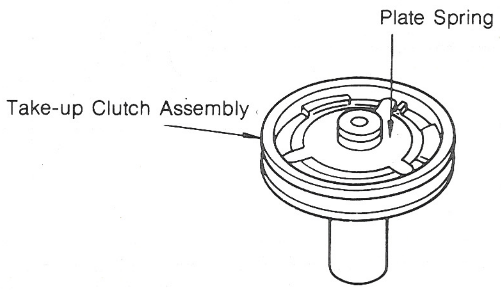


Plate Spring
Take-up Clutch Assembly

FIG. 16

DOLBY NOISE REDUCTION SYSTEM

GENERAL DESCRIPTION

The Dolby B-Type Noise Reduction System is used in this equipment, which reduces the level of background noise introduced during recording without changing the tone of audio signal.

METHOD OF DOLBY SYSTEM

Signal deviation of Dolby System is shown in Fig. 17.
Low level signal is recorded by boosting and is played back by attenuating as illustrated in the figure.
For example, following a level in Fig. 17:

1. When −30 dB REC signal is applied.
2. It is boosted to −20 dB and recorded on a magnetic head. [ENCODE]
3. Playing back this recorded tape (at −20 dB).
4. The output signal is boosted by Dolby System and reproduced at −30 dB, the same level as recorded. [RECODE]

Fig. 18 shows the boosting frequency characteristics. Generally, the signal deviation increases in proportion to the frequency.
At playback, the characteristics are curved symmetrically against the recording curve and the overall REC and PLAY curve flattens as shown in Fig. 19. This 0 dB is called Dolby Level, which is the flux level of the cassette tape and standardized at the point of 200 pwb/mm, and it is indicated by +3 VU on the VU meter of this equipment.

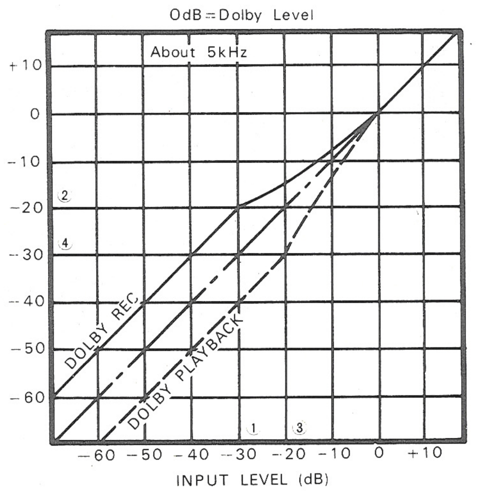


FIG. 17

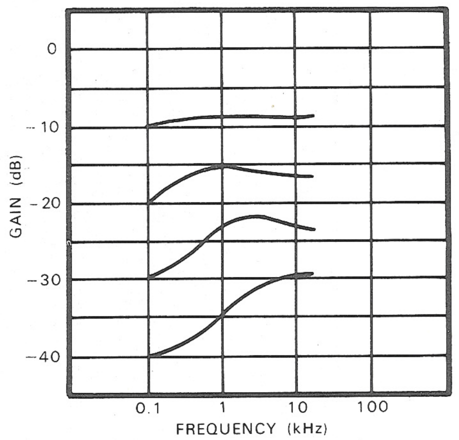


FIG. 18

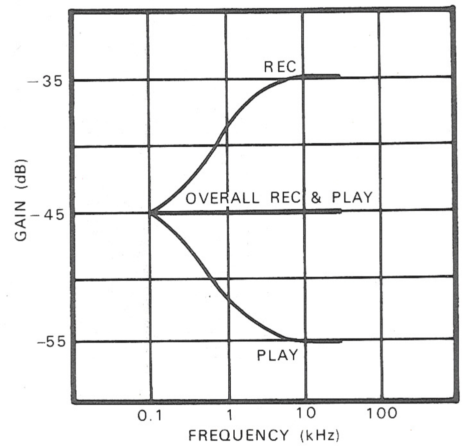


FIG. 19

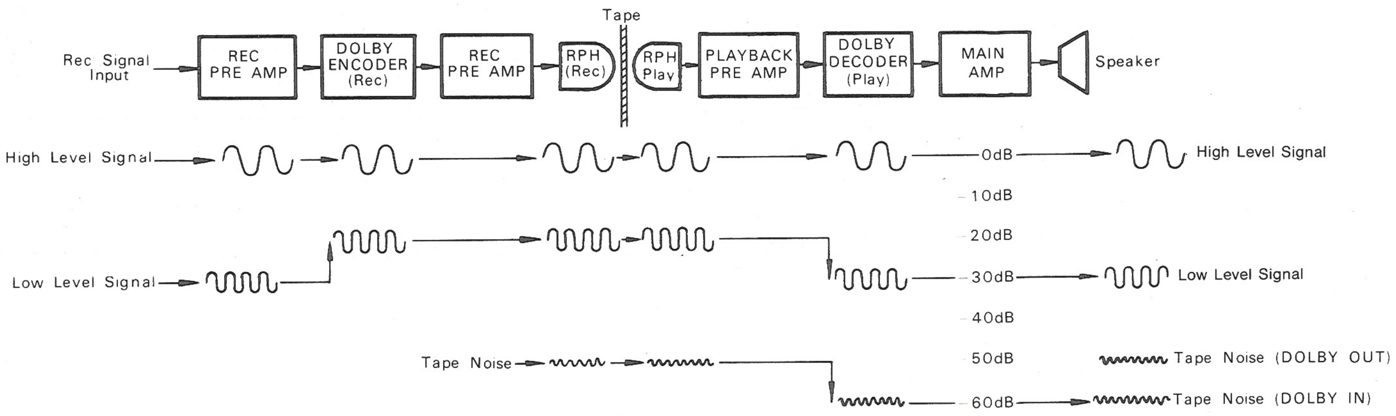

Tape
Rec Signal Input
REC PRE AMP
DOLBY ENCODER (Rec)
REC PRE AMP
RPH (Rec)
RPH Play
PLAYBACK PRE AMP
DOLBY DECODER (Play)
MAIN AMP
Speaker
High Level Signal
0dB
10dB
20dB
30dB
40dB
50dB
60dB
High Level Signal
Low Level Signal
Low Level Signal
Tape Noise
Tape Noise (DOLBY OUT)
Tape Noise (DOLBY IN)

FIG. 20

DOLBY NOISE REDUCTION SYSTEM

PRINCIPLE OF NOISE REDUCTION

Much of the audible noise of a tape recorder is a hiss noise of high and medium frequency created when recording on a magnetic tape while some of it is playback amplifier noise.
A high input signal level suppresses noise but a low input signal level decreases S/N ratio and noise is easily heard.
For solving this problem as shown in Fig. 20, the Dolby System operates by boosting a low-level, high and medium frequency approx. 10 dB when recording, and attenuating the same signal in a complementary manner during playback.
During this process, the hiss noise of high and medium frequency and the amplifier noise are suppressed approx. 10 dB.
Fig. 21 shows noise reduction in Dolby IN/OUT.

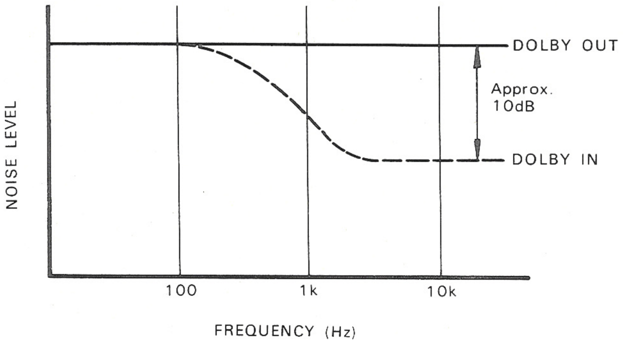


FIG. 21

CIRCUIT OPERATION

The operation of Noise Reduction System is shown in the block diagram of Fig. 22. By turning ST1, ST8, S10-4 and ST11 to REC/PLAY, this circuit operates on ENCODE/DECODE.
[ENCODE] : ST1, ST8 and ST11 in REC position.
Recording signal is applied to REC AMP and passes through AMP "A" of Dolby IC and the low-pass-filter "LPF", and then it enters AMP "B". LPF attenuates unwanted frequencies such as tape recorder bias or FM MPX sub. carrier signals to the level which will not influence the Dolby circuit operation. The output signal of AMP "B" is divided into two paths; one is directly supplied to ADDER "E", which is called a direct signal, while the other controls the noise reduction signal. This signal, passing through ST11, S10-4, high-pass-filter "HPF", variable resistance "F" and AMP "C", enters ADDER "E" and increases the direct signal.
As a result, REC signal from INVERTER "K" is boosted.
[DECODE] : Essentially the same circuitry.
ST1, ST8 and ST11 in PLAY position.
Playback signal from the playback head "RPH" is aplied to PLAYBACK PRE AMP and passes through ST8, AMP "A" of Dolby IC, "LPF" and AMP "B", and then it enters ADDER "E" as the direct signal. One part of output signal from INVERTER "K", passing through ST11, is supplied to MAIN AMP, and the other, as Noise Reduction Signal, passes through S10-4, "HPF".
Variable Resistance "F" and AMP "C", are applied to ADDER "E" in opposite phase. As a result, the level of the playback signal is attenuated. This circuit operates to boost at REC position [ENCODE] and to attenuate at PLAY position [DECODE].
"G" is the rectifying and smoothing circuit of Noise Reduction Signal and controls Variable Resistance "F". And "F" and "HPF" compose the dynamic high pass filter, and control the boosting and attenuating degree of high and medium frequency in response to the signal level (Figs. 18 and 19). "T" is the circuit setting the response time of Dolby.

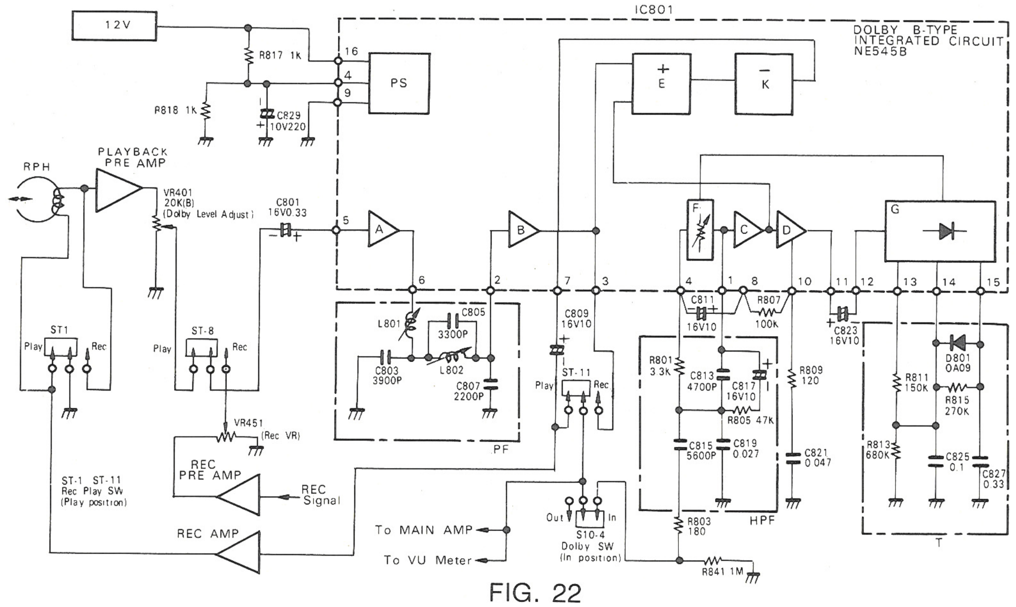

IC801
DOLBY B-TYPE INTEGRATED CIRCUIT NE545B
12V
R817 1k
R818 1k
C829 10V220
PS
16
4
9
RPH
PLAYBACK PRE AMP
VR401 20K(B) (Dolby Level Adjust)
C801 16V0.33
5
A
B
E
K
F
C
D
G
6
2
7
3
4
1
8
10
11
12
13
14
15
L801
C805 3300P
C803 3900P
L802
C807 2200P
PF
C809 16V10
ST-11
Play
Rec
ST1
ST-8
VR451 (Rec VR)
REC PRE AMP
REC Signal
ST-1 ST-11 Rec Play SW (Play position)
REC AMP
To MAIN AMP
To VU Meter
Out
In
S10-4 Dolby SW (In position)
C811 16V10
R807 100k
R801 3.3K
C813 4700P
C817 16V10
R805 47K
C815 5600P
C819 0.027
R809 120
C821 0.047
R803 180
HPF
R841 1M
C823 16V10
D801 OA09
R811 150K
R815 270K
R813 680K
C825 0.1
C827 0.33
T

FIG. 22

EXPLODED VIEW OF RECORD PLAYER

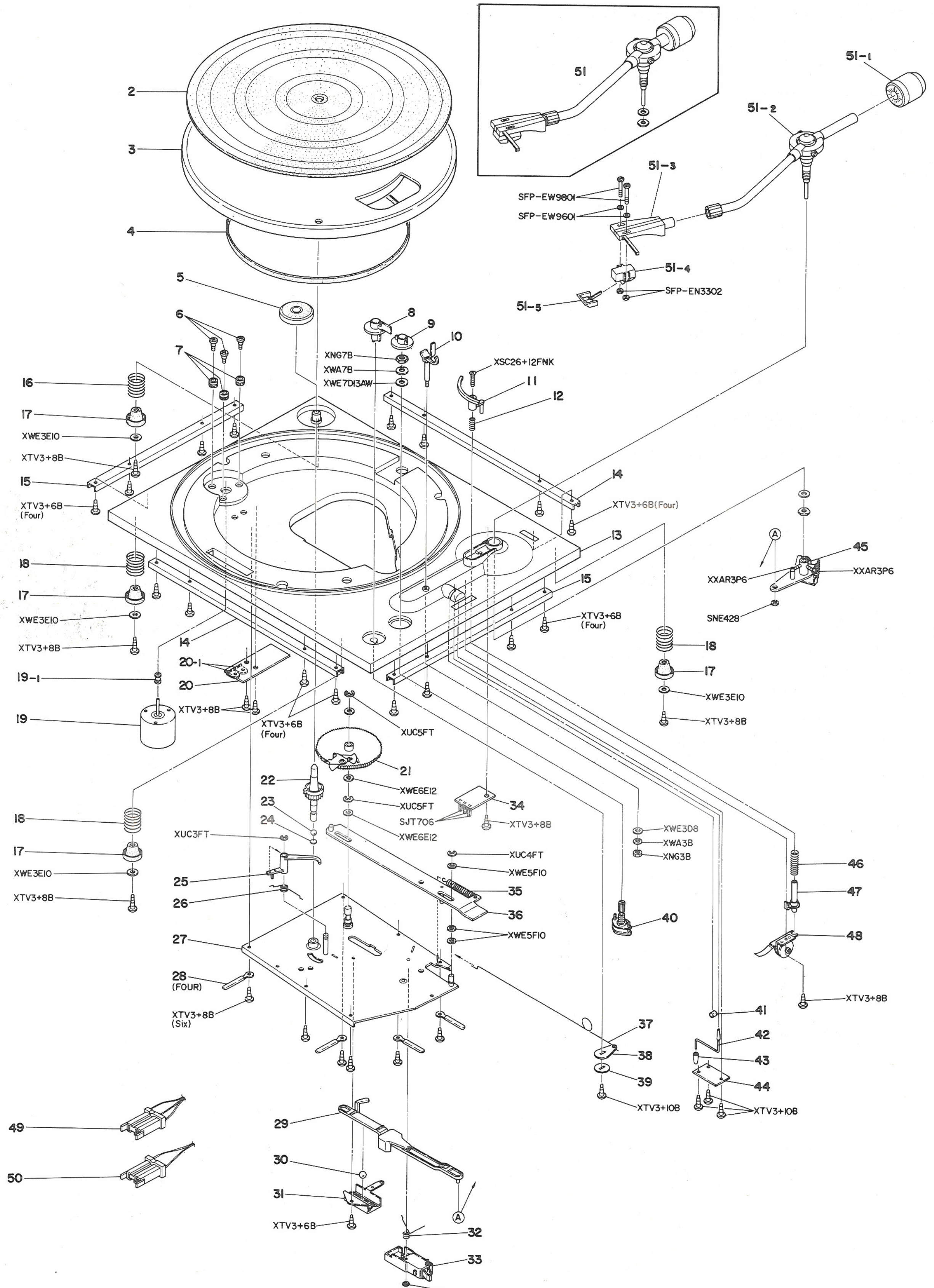

51
51-1
51-2
51-3
SFP-EW9801
SFP-EW9601
51-4
SFP-EN3302
51-5
2
3
4
5
6
7
8
9
10
XNG7B
XWA7B
XWE7D13AW
XSC26+12FNK
11
12
16
17
XWE3E10
XTV3+8B
15
XTV3+6B
(Four)
14
XTV3+6B(Four)
13
45
XXAR3P6
XXAR3P6
A
SNE428
15
XTV3+6B
(Four)
18
17
XWE3E10
XTV3+8B
14
20-1
19-1
20
XTV3+8B
19
XTV3+6B
(Four)
XUC5FT
21
22
XWE6E12
23
XUC5FT
24
XWE6E12
34
SJT706
XTV3+8B
XWE3D8
XWA3B
XNG3B
18
17
XWE3E10
XTV3+8B
18
17
XWE3E10
XTV3+8B
XUC3FT
25
26
XUC4FT
XWE5F10
35
36
XWE5F10
40
46
47
48
27
28
(FOUR)
XTV3+8B
(Six)
XTV3+8B
37
38
39
XTV3+10B
41
42
43
44
XTV3+10B
49
50
29
30
31
XTV3+6B
A
32
33
XWE2A43
XUC2FT

FIG. 23

SERVICING THE RECORD PLAYER

CARTRIDGE REPLACEMENT

1. Remove the headshell fixing nut by turning it clockwise and remove headshell from pickup arm.
2. Remove cartridge from headshell by removing the two screws and disconnecting the lead wires from cartridge, as shown in Fig. 24.
3. Using the two nuts attached, mount a new cartridge onto headshell so that the cartridge is perpendicular to the disc surface.

   Note:
   Correct stylus position can be obtained by relocating the cartridge, as shown in Fig. 25.
4. Connect the lead wires of identical colors as shown in Fig. 26.
5. Install headshell to pickup arm.

STYLUS REPLACEMENT

1. Lift pickup arm to a position that will make the stylus accessible.
2. Gently remove worn stylus and replace it with a new one, as shown in Fig. 27.

LUBRICATION

The record player has been thoroughly lubricated at the factory and under normal use should not require additional lubrication. When replacing some parts, however, it may be necessary to lubricate the parts as specified.
(Apply grease to Ⓖ as shown in Figs. 29 and 30.)

Note:
Do not allow grease to touch motor pulley, belt and turntable.

STYLUS PRESSURE ADJUSTMENT

1. Release pickup arm from its seated position. Place a record on the turntable. Then, balance the pickup arm by turning in or out the balance weight until the stylus is leveled to the surface of the record (as viewed from the turntable unit side).
2. Set the stylus pressure dial to "0", and since the specified stylus pressure of the cartridge is 2.0 grams, set the balance weight dial to "2" by turning the weight counterclockwise as shown in Fig. 28 (as viewed from the front panel side).

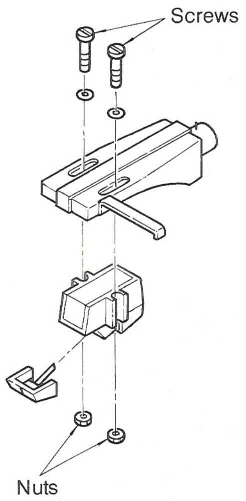


FIG. 24

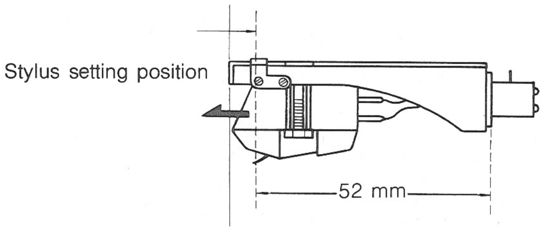


FIG. 25

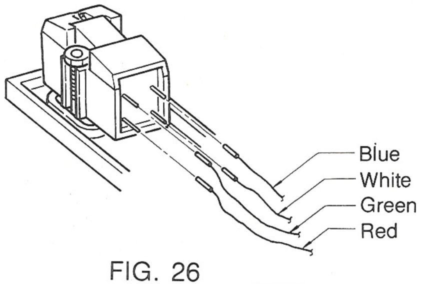


FIG. 26

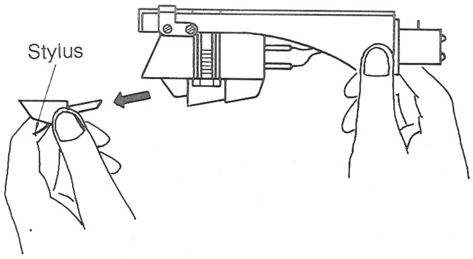


FIG. 27

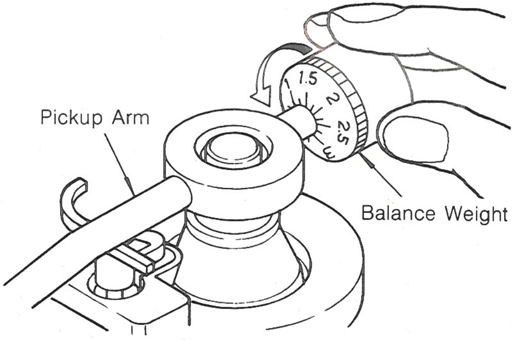


FIG. 28

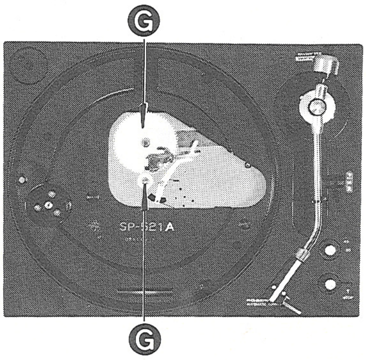


FIG. 29

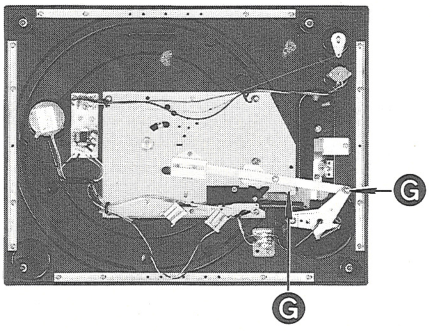


FIG. 30

EXPLODED VIEW OF CASSETTE TAPE PLAYER/RECORDER

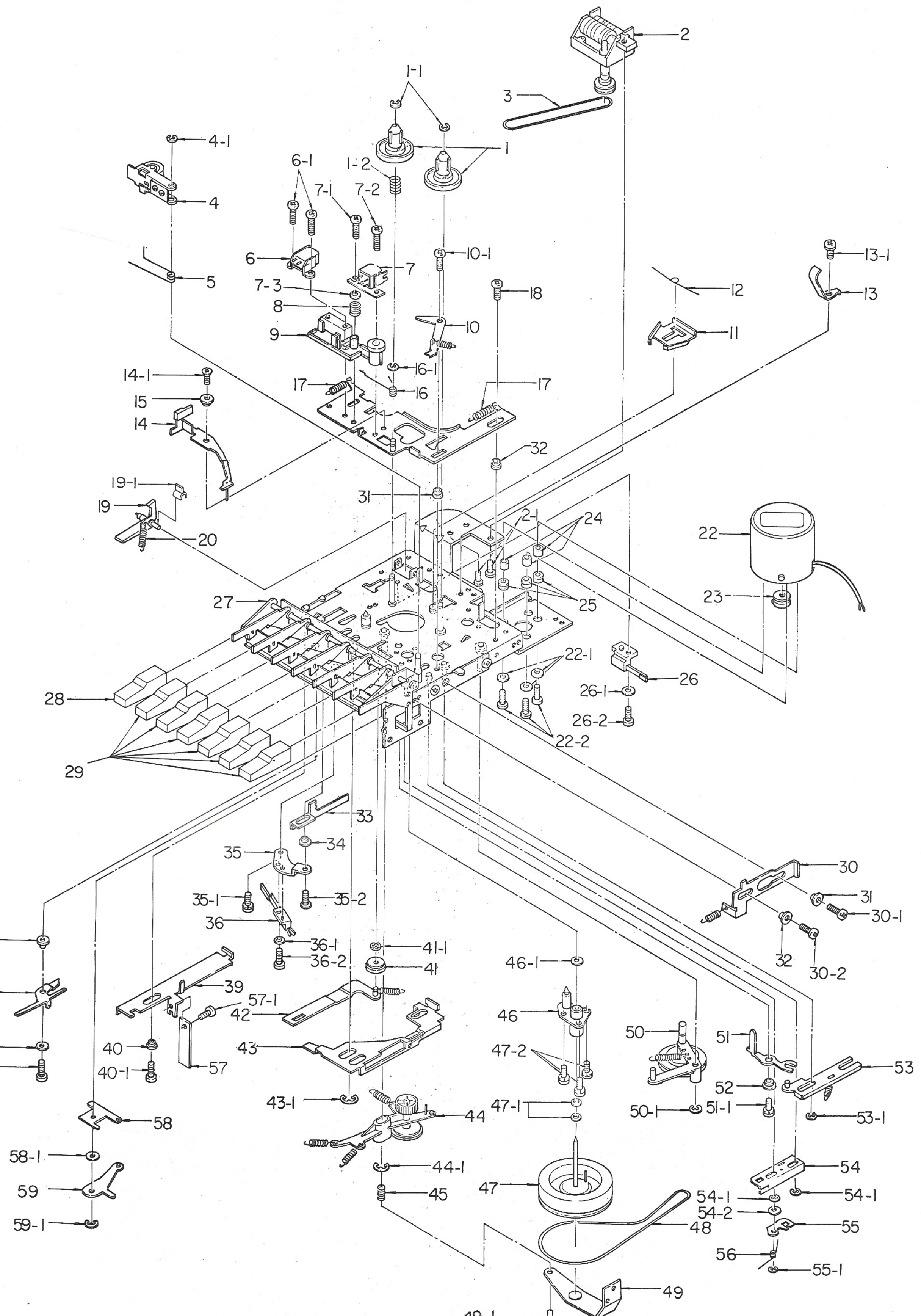

2
1-1
3
4-1
1
6-1
1-2
4
7-1
7-2
13-1
10-1
6
7
5
12
18
13
7-3
8
10
11
9
16-1
14-1
17
16
17
15
14
32
19-1
31
2-1
24
22
19
20
23
27
25
22-1
28
26-1
26
26-2
22-2
29
33
34
35
30
31
35-1
35-2
30-1
36
38
36-1
41-1
32
30-2
36-2
46-1
41
37
39
57-1
42
46
50
51
53
40
43
47-2
37-1
37-2
57
40-1
52
43-1
47-1
50-1
51-1
53-1
44
58
58-1
44-1
54
59
45
47
54-1
54-1
54-2
48
55
59-1
56
55-1
49
49-1

FIG. 31

REPLACEMENT PARTS LIST

NOTES:
1. Part numbers are indicated on most mechanical parts.
2. Please use this part number for parts orders.
3. Part numbers composed by bold face are service standard parts and may differ from production parts.
4. Components identified by shaded area have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
5. A ~ C rank.
   A rank parts will cover 80% of repair needs.
   A + B rank parts will cover 95% of repair needs.
   C rank parts are less necessary.
6. The term "M. Film" is the abbreviation of Metal Film.

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks
		TRANSISTORS		
TR201	2SC1359	AM Converter	1	A
TR202	2SA666	Tuning	1	A
TR401,402	2SC1327	Tape EQ Amplifier	2	A
TR403,404	2SC1327	Tape EQ Amplifier	2	A
TR405,406	2SC828	VU Meter Amplifier	2	A
TR407,408	2SC1684	Muting	2	A
TR409,410	2SC1684	REC Amplifier	2	A
TR411,412	2SC1327	MIC Amplifier	2	A
TR413	2SC1684	Muting	1	A
TR501,502	2SC1327	AF 1st Amplifier	2	A
TR503,504	2SC1684	AF 2nd Amplifier	2	A
TR601,602	2SC1327	Phono Equalizer 1st Amplifier	2	A
TR603,604	2SC1327	Phono Equalizer 2nd Amplifier	2	A
TR801	2SB175	Dolby Amplifier	1	A
TR802	2SB324	Dolby Amplifier	1	A
TR803,804	2SC1684	Muting	2	A
TR805,806	2SC828	Switching	2	A
TR807	2SC828	Switching	1	A
TR901,902	2SC1398	Automatic Voltage Regulator	2	A
TR903,904	2SC828	Automatic Voltage Regulator	2	A
TR905	2SC828	Automatic Voltage Regulator	1	A
		INTEGRATED CIRCUITS		
IC201	AN217	IF Amplifier	1	A
IC301	LA3350A	MPX Amplifier	1	A
IC701	STK040	Power Amplifier	1	A
IC801,802	NE545B	Dolby Amplifier	2	A

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks
		DIODES		
D101~105	LN22	Preset IND	5	A
D203	2OA90	AGC	1	A
D204,205	2OA90	FM DET	2	A
D206	2OA90	AM DET	1	A
D207	2OA90	AM RECT	1	A
D208	VD1150	AOC	1	A
D301	MA161	Switching	1	A
D401,402	2OA90	Rectifier	2	A
D801,802	OA91	Rectifier	2	A
D803	VD1121	AOC	1	A
D804,805	2OA90	Damper	2	A
D806	LN22	REC IND	1	A
D808,809	VD1121	Switching	2	A
D810	VD1121	Rectifier	1	A
D811~814	VD1121	Switching	4	A
D901	S1RBA10	Rectifier	1	A
D902	S5VB20	Rectifier	1	○ A
D903	10D1	Rectifier	1	A
D904	MA1130	Automatic Voltage Regulator	1	A
D905	RD7R5EB	Automatic Voltage Regulator	1	A
D907	RD7R5EB	Automatic Voltage Regulator	1	A
D908	RD7R5EB	Automatic Voltage Regulator	1	A
		THERMISTOR		
TH801	RRT103	Temperature Compensation	1	A
		LAMPS AND FUSES		
PL1	XAMR53X300	Pilot Lamp, Dial Light 14V 50mA	1	A
PL2	XAMR53X300	Pilot Lamp, Stereo Eye 14V 50mA	1	A
F1	XBAS2A1201	1.25A, 250V	1	A
F2	XBAS2A1004	1A, 250V	1	A
F3,4	XBA2C31TR0	3.15A, 250V	2	A
F5	SBAS2A1201	1.25A, 250V	1	A

REPLACEMENT PARTS LIST

Ref. No.		Part No.	Description	Per Set (pcs.)	Remarks			
METER								
M1		SSM70	Dial	1	A			
M2		SSM76	VU Tuning	1	○ A			
COMPONENT COMBINATION								
Z201		EXA5DL04C	330pF × 3, 4.7kΩ × 2	1	A			
Z202		EXAF203Z471	0.01μF × 2, 470Ω	1	A			
Z901,902		EXNF2SL04C	0.01μF × 2	2	A			
Z903,904		EXNF2SL04C	0.01μF × 2	2	A			
COILS AND TRANSFORMERS								
L101,102		SLQY11G-2	Coil, Choke	2	A			
L201,202		SLF6G30-O	Ferrite Antenna Coil, MW and LW	2	○ A			
L203		SL02M2-M	Oscillator Coil, MW	1	A			
L204		SLO1M6	Oscillator Coil, LW	1	○ A			
L401,402		SLQU222-2Y	Coil, REC EQ	2	A			
L403,404		SLQV393-4Y	Coil, Trap	2	A			
L801,802		SLQC363-2K	Coil, Trap 19 kHz	2	A			
L803,804		SLQC233-2K	Coil, Trap 38 kHz	2	A			
L805		SLO9Z10-K	Bias OSC Coil	1	A			
L806,807		ELQ250A999	Coil, Choke	2	A			
L901,902		SLQY35S-2S	Coil, RFC	1	A			
T1		SLT5U4-W	Power Transformer	1	○ A			
T202		RLI7W105Q-M	CFT, AM 455 kHz	1	A			
T203		RLI2M402	IFT, AM 2nd	1	A			
T204		RLI4M501-M	FM Disc.	1	A			
T205		RLI4M502-M	FM Disc.	1	A			
T801		SLT6E2-D	Output Transformer, Bias OSC	1	A			
T201		SLI2M102	IFT, AM 1st	1	A			
CF201,202		RVFCF10M12CR	Ceramic Filter 10.7 MHz	2	A			
RESISTORS								
R101		**ERD25TJ332**	Carbon 3.3kΩ 1/4W ±5%	1	C			
R102		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	1	C			
R103		**ERD25TJ153**	Carbon 150kΩ 1/4W ±5%	1	C			
R104		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	1	C			
R105		**ERQ12HJ470**	Carbon 47Ω 1/2W ±5%	1	○ C			
R201		**ERD25TJ151**	Carbon 150Ω 1/4W ±5%	1	C			
R202		**ERD25TJ331**	Carbon 330Ω 1/4W ±5%	1	C			
R203		**ERD25TJ332**	Carbon 3.3kΩ 1/4W ±5%	1	C			
R204		**ERD25TJ152**	Carbon 1.5kΩ 1/4W ±5%	1	C			
R205		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	1	C			
R206		**ERD25TJ471**	Carbon 470Ω 1/4W ±5%	1	C			
R207		**ERD25TJ101**	Carbon 100Ω 1/4W ±5%	1	C			
R208		**ERD25TJ470**	Carbon 47Ω 1/4W ±5%	1	C			
R209		**ERD25TJ224**	Carbon 220kΩ 1/4W ±5%	1	C			
R210		**ERD25TJ333**	Carbon 33kΩ 1/4W ±5%	1	C			
R211,212		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	2	C			
R213		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	1	C			
R214		**ERD25TJ473**	Carbon 47kΩ 1/4W ±5%	1	C			
R215		**ERD25TJ223**	Carbon 22kΩ 1/4W ±5%	1	C			
R216		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	1	C			
R217		**ERD25TJ682**	Carbon 6.8kΩ 1/4W ±5%	1	C			
R219		**ERD25TJ332**	Carbon 3.3kΩ 1/4W ±5%	1	C			
R220		**ERD25TJ683**	Carbon 68kΩ 1/4W ±5%	1	C			
R221		**ERD25TJ223**	Carbon 22kΩ 1/4W ±5%	1	C			
R222		**ERD25TJ224**	Carbon 220kΩ 1/4W ±5%	1	C			
R223		**ERD25TJ474**	Carbon 470kΩ 1/4W ±5%	1	C			
R224		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	1	C			
R225		**ERD25TJ332**	Carbon 3.3kΩ 1/4W ±5%	1	C			
R226,227		**ERD25TJ103**	Carbon 10kΩ 1/4W ±5%	2	C			
R228		**ERD25TJ332**	Carbon 3.3kΩ 1/4W ±5%	1	C			
R229		**ERD25TJ330**	Carbon 33Ω 1/4W ±5%	1	C			
R230		**ERD25TJ151**	Carbon 150Ω 1/4W ±5%	1	C			
R231		**ERD25TJ152**	Carbon 1.5kΩ 1/4W ±5%	1	C			
R232		**ERD25TJ470**	Carbon 47Ω 1/4W ±5%	1	C			
R233		**ERD25TJ221**	Carbon 220Ω 1/4W ±5%	1	C			
R234		**ERQ12HJ680**	Carbon 68Ω 1/2W ±5%	1	○ C			
R235,236		**ERD25TJ103**	Carbon 10kΩ 1/4W ±5%	2	C			
R237,238		**ERD25TJ103**	Carbon 10kΩ 1/4W ±5%	2	C			
R239		**ERD25TJ223**	Carbon 22kΩ 1/4W ±5%	1	C			
R240		**ERD25TJ153**	Carbon 15kΩ 1/4W ±5%	1	C			
R241		**ERD25TJ332**	Carbon 3.3kΩ 1/4W ±5%	1	C			
R242		**ERD25TJ153**	Carbon 15kΩ 1/4W ±5%	1	C			
R301		**ERD25TJ103**	Carbon 10kΩ 1/4W ±5%	1	C			
R302		**ERD25TJ682**	Carbon 6.8kΩ 1/4W ±5%	1	C			
R303		**ERD25TJ332**	Carbon 3.3kΩ 1/4W ±5%	1	C			
R304		**ERD25TJ221**	Carbon 220Ω 1/4W ±5%	1	C			
R305,306		**ERD25TJ104**	Carbon 100kΩ 1/4W ±5%	2	C			
R307,308		**ERD25TJ472**	Carbon 4.7kΩ 1/4W ±5%	2	C			
R309,310		**ERD25TJ472**	Carbon 4.7kΩ 1/4W ±5%	2	C			
R311,312		**ERD25TJ684**	Carbon 680kΩ 1/4W ±5%	2	C			
R401,402		**ERD25TJ100**	Carbon 10Ω 1/4W ±5%	2	C			
R403,404		**ERD25TJ104**	Carbon 100kΩ 1/4W ±5%	2	C			
R405,406		**ERD25TJ101**	Carbon 100Ω 1/4W ±5%	2	C			
R407,408		**ERD25TJ224**	Carbon 220kΩ 1/4W ±5%	2	C			

REPLACEMENT PARTS LIST

Ref. No.		Part No.	Description	Per Set (pcs.)	Remarks			
R409,410		**ERD25TJ103**	Carbon 10kΩ 1/4W ±5%	2	C			
R411,412		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	2	C			
R413,414		**ERD25TJ682**	Carbon 6.8kΩ 1/4W ±5%	2	C			
R415,416		**ERD25TJ392**	Carbon 3.9kΩ 1/4W ±5%	2	C			
R417,418		**ERD25TJ334**	Carbon 330kΩ 1/4W ±5%	2	C			
R419		**ERD25TJ221**	Carbon 220Ω 1/4W ±5%	1	C			
R420		**ERD25TJ333**	Carbon 33kΩ 1/4W ±5%	1	C			
R421,422		**ERD25TJ224**	Carbon 220kΩ 1/4W ±5%	2	C			
R423,424		**ERD25TJ471**	Carbon 470Ω 1/4W ±5%	2	C			
R425,426		**ERD25TJ152**	Carbon 1.5kΩ 1/4W ±5%	2	C			
R427,428		**ERD25TJ222**	Carbon 2.2kΩ 1/4W ±5%	2	C			
R431,432		**ERD25TJ332**	Carbon 3.3kΩ 1/4W ±5%	2	C			
R433,434		**ERD25TJ334**	Carbon 330kΩ 1/4W ±5%	2	C			
R435,436		**ERD25TJ470**	Carbon 47Ω 1/4W ±5%	2	C			
R437,438		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	2	C			
R439,440		**ERD25TJ471**	Carbon 470Ω 1/4W ±5%	2	C			
R441,442		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	2	C			
R443,444		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	2	C			
R445,446		**ERD25TJ103**	Carbon 10kΩ 1/4W ±5%	2	C			
R447,448		**ERD25TJ823**	Carbon 82kΩ 1/4W ±5%	2	C			
R451,452		**ERD25TJ332**	Carbon 3.3kΩ 1/4W ±5%	2	C			
R453,454		**ERD25TJ105**	Carbon 1MΩ 1/4W ±5%	2	C			
R455,456		**ERD25TJ682**	Carbon 6.8kΩ 1/4W ±5%	2	C			
R457,458		**ERD25TJ331**	Carbon 330Ω 1/4W ±5%	2	C			
R459,460		**ERD25TJ103**	Carbon 10kΩ 1/4W ±5%	2	C			
R461,462		**ERD25TJ104**	Carbon 100kΩ 1/4W ±5%	2	C			
R463		**ERD25TJ101**	Carbon 100Ω 1/4W ±5%	1	C			
R464,465		**ERG1ANJ151**	M. Film 150Ω 1W ±5%	2	C			
R466		**ERD25TJ153**	Carbon 15kΩ 1/4W ±5%	1	C			
R467		**ERD25TJ103**	Carbon 10kΩ 1/4W ±5%	1	C			
R468		**ERD25TJ104**	Carbon 100kΩ 1/4W ±5%	1	C			
R471,472		**ERD25TJ333**	Carbon 33kΩ 1/4W ±5%	2	C			
R473,474		**ERD25TJ332**	Carbon 3.3kΩ 1/4W ±5%	2	C			
R501,502		**ERD25TJ155**	Carbon 1.5MΩ 1/4W ±5%	2	C			
R503,504		**ERD25TJ472**	Carbon 4.7kΩ 1/4W ±5%	2	C			
R505,506		**ERD25TJ471**	Carbon 470Ω 1/4W ±5%	2	C			
R507,508		**ERD25TJ683**	Carbon 68kΩ 1/4W ±5%	2	C			
R509,510		**ERD25TJ223**	Carbon 22kΩ 1/4W ±5%	2	C			
R511,512		**ERD25TJ683**	Carbon 68kΩ 1/4W ±5%	2	C			
R513,514		**ERD25TJ153**	Carbon 15kΩ 1/4W ±5%	2	C			
R515,516		**ERD25TJ223**	Carbon 22kΩ 1/4W ±5%	2	C			
R517,518		**ERD25TJ332**	Carbon 3.3kΩ 1/4W ±5%	2	C			
R519,520		**ERD25TJ223**	Carbon 22kΩ 1/4W ±5%	2	C			
R521,522		**ERD25TJ222**	Carbon 2.2kΩ 1/4W ±5%	2	C			
R523,524		**ERD25TJ103**	Carbon 10kΩ 1/4W ±5%	2	C			
R525,526		**ERD25TJ155**	Carbon 1.5MΩ 1/4W ±5%	2	C			
R527,528		**ERD25TJ472**	Carbon 4.7kΩ 1/4W ±5%	2	C			
R529,530		**ERD25TJ221**	Carbon 220Ω 1/4W ±5%	2	C			

Ref. No.		Part No.	Description	Per Set (pcs.)	Remarks			
R531,532		**ERD25TJ682**	Carbon 6.8kΩ 1/4W ±5%	2	C			
R533,534		**ERD25TJ153**	Carbon 15kΩ 1/4W ±5%	2	C			
R535,536		**ERD25TJ153**	Carbon 15kΩ 1/4W ±5%	2	C			
R539		**ERD25TJ221**	Carbon 220Ω 1/4W ±5%	1	C			
R540		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	1	C			
R601,602		**ERD25TJ683**	Carbon 68kΩ 1/4W ±5%	2	C			
R603,604		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	2	C			
R605,606		**ERD25TJ683**	Carbon 68kΩ 1/4W ±5%	2	C			
R607,608		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	2	C			
R609,610		**ERD25TJ682**	Carbon 6.8kΩ 1/4W ±5%	2	C			
R611,612		**ERD25TJ682**	Carbon 6.8kΩ 1/4W ±5%	2	C			
R613,614		**ERD25TJ683**	Carbon 68kΩ 1/4W ±5%	2	C			
R615,616		**ERD25TJ222**	Carbon 2.2kΩ 1/4W ±5%	2	C			
R617,618		**ERD25TJ332**	Carbon 3.3kΩ 1/4W ±5%	2	C			
R619		**ERD25TJ333**	Carbon 33kΩ 1/4W ±5%	1	C			
R620		**ERD25TJ222**	Carbon 2.2kΩ 1/4W ±5%	1	C			
R621,622		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	2	C			
R701,702		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	2	C			
R703,704		**ERD25TJ333**	Carbon 33kΩ 1/4W ±5%	2	C			
R705,706		**ERD25TJ221**	Carbon 220Ω 1/4W ±5%	2	C			
R707,708		**ERD25TJ333**	Carbon 33kΩ 1/4W ±5%	2	C			
R709,710		**ERD50TJ220**	Carbon 22Ω 1/2W ±5%	2	C			
R711		**ERG1ANJ101**	M. Film 100Ω 1W ±5%	1	C			
R712		**ERG1ANJ471**	M. Film 470Ω 1W ±5%	1	C			
R713,714		**ERD50TJ331**	Carbon 330Ω 1/2W ±5%	2	C			
R801,802		**ERO25CKF3301**	Carbon 33Ω 1/4W ±5%	2	○ C			
803,804		**ERD25TJ181**	Carbon 180Ω 1/4W ±5%	2	C			
R805,806		**ERD25TJ473**	Carbon 47kΩ 1/4W ±5%	2	C			
R807,808		**ERD25TJ104**	Carbon 100kΩ 1/4W ±5%	2	C			
R809,810		**ERD25TJ121**	Carbon 120Ω 1/4W ±5%	2	C			
R811,812		**ERD25TJ154**	Carbon 150kΩ 1/4W ±5%	2	C			
R813,814		**ERD25TJ684**	Carbon 680kΩ 1/4W ±5%	2	C			
R815,816		**ERD25TJ274**	Carbon 270kΩ 1/4W ±5%	2	C			
R817,818		**ERD25TJ105**	Carbon 1MΩ 1/4W ±5%	2	C			
R821		**ERD25TJ220**	Carbon 22Ω 1/4W ±5%	1	C			
R822,823		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	2	C			
R824		**ERD25TJ221**	Carbon 220Ω 1/4W ±5%	1	C			
R825		**ERD25TJ683**	Carbon 6.8kΩ 1/4W ±5%	1	C			
R826,827		**ERD25TJ221**	Carbon 220Ω 1/4W ±5%	2	C			
R828		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	1	C			
R829		**ERG1ANJ101**	M. Film 100Ω 1W ±5%	1	C			
R830		**ERG1ANJ151**	M. Film 150Ω 1W ±5%	1	C			
R831,832		**ERD25TJ682**	Carbon 6.8kΩ 1/4W ±5%	2	C			
R833		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	1	C			
R834		**ERD25TJ104**	Carbon 100kΩ 1/4W ±5%	1	C			
R836		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	1	C			
R837		**ERD25TJ103**	Carbon 10kΩ 1/4W ±5%	1	C			
R838,839		**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	2	C			

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks
R840,841	**ERD25TJ472**	Carbon 4.7kΩ 1/4W ±5%	2	C
R842	**ERD25TJ472**	Carbon 4.7kΩ 1/4W ±5%	1	C
R843,844	**ERD25TJ222**	Carbon 2.2kΩ 1/4W ±5%	2	C
R845,846	**ERD25TJ473**	Carbon 47kΩ 1/4W ±5%	2	C
R901	**ERX1ANJ1R0**	M. Film 1Ω 1W ±5%	1	C
R902	**ERG1ANJ681**	M. Film 680Ω 1W ±5%	1	C
R903	**ERD25TJ331**	Carbon 330Ω 1/4W ±5%	1	C
R904	**ERD25TJ472**	Carbon 4.7kΩ 1/4W ±5%	1	C
R905	**ERD25TJ103**	Carbon 10kΩ 1/4W ±5%	1	C
R906	**ERD25TJ681**	Carbon 680Ω 1/4W ±5%	1	C
R907	**ERD25TJ102**	Carbon 1kΩ 1/4W ±5%	1	C
R908	**ERD25TJ681**	Carbon 680Ω 1/4W ±5%	1	C
R909	**ERD25TJ332**	Carbon 3.3kΩ 1/4W ±5%	1	C
R910	**ERD25TJ471**	Carbon 470Ω 1/4W ±5%	1	C
R911	**ERD25TJ222**	Carbon 2.2kΩ 1/4W ±5%	1	C
R912,913	**ERG1ANJ101**	M. Film 100Ω 1W ±5%	2	C
R914	**ERD25TJ221**	Carbon 220Ω 1/4W ±5%	1	C
R847	**ERD25TJ103**	Carbon 10kΩ 1/4W ±5%	1	C

CAPACITORS

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks
C101,102	ECKD1H223PF	Ceramic 0.022μF 50WV +100, −0%	2	C
C103	ECKD1H223PF	Ceramic 0.022μF 50WV +100, −0%	1	C
C104	**ECEA10V100**	Electrolytic 100μF 10WV	1	C
C105	**ECEA16V10**	Electrolytic 10μF 16WV	1	C
C201	ECCD1H331K	Ceramic 330pF 50WV ±10%	1	C
C202	ECKD1H223PF	Ceramic 0.022μF 50WV +100, −0%	1	C
C203	ECKD1H102MD	Ceramic 0.001μF 50WV ±20%	1	C
C204	ECCD1H220K	Ceramic 22pF 50WV ±10%	1	C
C205	ECKD1H223MD	Ceramic 0.022μF 50WV ±20%	1	C
C206	ECKD1H223PF	Ceramic 0.022μF 50WV +100, −0%	1	C
C207	ECKD1H223PF	Ceramic 0.022μF 50WV +100, −0%	1	C
C208	ECQS1152JZ	Styrol 1500pF 100WV ±5%	1	C
C209,210	**ECEA16V10**	Electrolytic 10μF 16WV	2	C
C212	ECKD1H223PF	Ceramic 0.022μF 50WV +100, −0%	1	C
C213	ECCD1H331K	Ceramic 330pF 50WV ±10%	1	C
C214	**ECEA35V4R7**	Electrolytic 4.7μF 25WV	1	C
C215	ECKD1H223PF	Ceramic 0.022μF 50WV +100, −0%	1	C
C216	**ECEA16V10**	Electrolytic 10pF 16WV	1	C
C217	ECAG16ER22	Electrolytic 0.22μF 16WV	1	C
C218	ECKD1H223PF	Ceramic 0.022μF 50WV +100, −0%	1	C
C219	**ECEA16V10**	Electrolytic 10pF 16WV	1	C
C220	ECKD1H223PF	Ceramic 0.022μF 50WV +100, −0%	1	C
C221	ECCD1H330K	Ceramic 33μF 50WV ±10%	1	C
C222	ECKD1H102MD	Ceramic 0.001μF 50WV ±20%	1	C
C223	ECCD1H101K	Ceramic 100pF 50WV ±10%	1	C
C224	ECCD1H220K	Ceramic 220pF 50WV ±10%	1	C
C225	ECKD1H103MD	Ceramic 0.01μF 50WV ±20%	1	C
C226	**ECEA16V33**	Electrolytic 33μF 16WV	1	C
C227	ECKD1H103MD	Ceramic 0.01μF 50WV ±20%	1	C
C228	ECKD1H223MD	Ceramic 0.022μF 50WV ±20%	1	C
C229	ECQS1391JZ	Styrol 390pF 10WV ±5%	1	C
C230	ECQS1181JZ	Styrol 180pF 10WV ±5%	1	C
C231	ECCD1H680J	Ceramic 68μF 10WV ±10%	1	C
C232	ECCD1H080D	Ceramic 8pF 10WV ±0.25pF	1	C
C233	**ECEA16V10**	Electrolytic 10pF 16WV	1	C
C234	ECKD1H222MD	Ceramic 0.0022μF 10WV ±20%	1	C
C235	ECKD1H332MD	Ceramic 0.0033μF 10WV ±20%	1	C
C236,237	ECKD1H102MD	Ceramic 0.001μF 10WV ±20%	2	C
C238	ECCD1H680K	Ceramic 68μF 10WV ±10%	1	C
C301	**ECEA50V1**	Electrolytic 1μF 50WV	1	C
C302	ECQS1152JZ	Styrol 1500pF 100WV ±5%	1	C
C303	ECQM05473MZ	Polyester 0.047μF 125WV ±20%	1	C
C304	**ECEA16V47**	Electrolytic 47μF 16WV	1	C
C305	ECAG16ER22	Electrolytic 0.22μF 16WV	1	C
C306	ECAG16ER47	Electrolytic 0.47μF 16WV	1	C
C307	**ECEA50V1**	Electrolytic 1μF 50WV	1	C
C308	**ECEA16V10**	Electrolytic 10μF 16WV	1	C
C309,310	ECKD1H472MD	Ceramic 0.0047μF 50WV ±20%	2	C
C311,312	ECAG16ER1	Electrolytic 0.1μF 16WV	2	C
C313,314	ECKD1H332MD	Ceramic 0.0033μF 50WV ±20%	2	C
C401,402	ECQS1102JZ	Styrol 1000pF 100WV ±5%	2	C
C403,404	ECEA16V10G	Electrolytic 10μF 16WV	2	C
C405,406	ECKD1H102MD	Ceramic 0.001μF 50WV ±20%	2	C
C407,408	**ECEA16V10**	Electrolytic 10μF 16WV	2	C
C409,410	**ECEA35V4R7**	Electrolytic 4.7μF 25WV	2	C
C411,412	ECQM05153MZ	Polyester 0.015μF 125WV ±20%	2	C
C415,416	**ECEA16V100**	Electrolytic 100μF 16WV	2	C
C421,422	ECEA50N1	Electrolytic 1μF 50WV	2	C
C423,424	**ECEA50V3R3**	Electrolytic 3.3μF 25WV	2	C
C431,432	ECAG16ER68	Electrolytic 0.68μF 16WV	2	C
C433,434	**ECEA50V1**	Electrolytic 1μF 50WV	2	C
C435,436	ECQM05103MZ	Polyester 0.01μF 50WV ±20%	2	C
C437,438	ECQM05473MZ	Polyester 0.047μF 50WV ±20%	2	C
C439,440	**ECEA16V10**	Electrolytic 10μF 16WV	2	C
C441,442	ECQM05472MZ	Polyester 0.0047μF 125WV ±20%	2	C
C443,444	ECAG16ER1	Electrolytic 0.1μF 16WV	2	C
C445,446	ECQM05393MZ	Polyester 0.039μF 125WV ±20%	2	C
C447,448	ECQM05393MZ	Polyester 0.039μF 125WV ±20%	2	C
C451,452	**ECEA35V4R7**	Electrolytic 4.7μF 25WV	2	C
C453,454	ECKD1H102PF	Ceramic 0.001μF 50WV +100, −0%	2	C
C455,456	ECAG16ER1	Electrolytic 0.1μF 16WV	2	C
C464,465	**ECEA35V220**	Electrolytic 220μF 35WV	2	C

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks
C466	**ECEA16V47**	Electrolytic 47μF 16WV	1	C
C467	**ECEA16V10**	Electrolytic 10μF 16WV	1	C
C468	**ECEA50V1**	Electrolytic 1μF 50WV	1	C
C501,502	**ECEA50V1**	Electrolytic 1μF 50WV	2	C
C503,504	ECKD1H102PF	Ceramic 0.001μF 50WV +100, −0%	2	C
C505,506	**ECEA50V1**	Electrolytic 1μF 50WV	2	C
C507,508	ECKD1H223MD	Ceramic 0.022μF 50WV ±20%	2	C
C509,510	ECQM05683MZ	Polyester 0.068μF 125WV ±20%	2	C
C511,512	ECKD1H222MD	Ceramic 0.0022μF 50WV ±20%	2	C
C513,514	ECKD1H153MD	Ceramic 0.015μF 50WV ±20%	2	C
C515,516	**ECEA50V1**	Electrolytic 1μF 50WV	2	C
C517,518	**ECEA50V1**	Electrolytic 1μF 50WV	2	C
C519,520	ECAG16ER47	Electrolytic 0.47μF 16WV	2	C
C523	**ECEA16V470**	Electrolytic 470μF 16WV	1	C
C524	**ECEA16V220**	Electrolytic 220μF 16WV	1	C
C601,602	ECAG16E1	Electrolytic 1μF 16WV	2	C
C603,604	ECKD1H102PF	Ceramic 0.001μF 50WV +100, −0%	2	C
C605,606	**ECEA16V47**	Electrolytic 47μF 16WV	2	C
C607,608	ECQM05103MZ	Polyester 0.01μF 125WV ±20%	2	C
C609,610	ECQM05333MZ	Polyester 0.033μF 125WV ±20%	2	C
C611,612	**ECEA50V1**	Electrolytic 1μF 50WV	2	C
C613	**ECEA16V33**	Electrolytic 33μF 16WV	1	C
C614	**ECEA10V100**	Electrolytic 100μF 10WV	1	C
C615,616	ECCD1H331K	Ceramic 330pF 50WV ±10%	2	C
C701,702	ECKD1H102MD	Ceramic 0.001μF 50WV ±20%	2	C
C703,704	ECAG16ER22	Electrolytic 0.22μF 16WV	2	C
C705,706	**ECEA16V47**	Electrolytic 47μF 16WV	2	C
C707,708	ECCD1H080D	Ceramic 8pF 50WV ±0.25pF	2	C
C709,710	**ECEA35V47**	Electrolytic 47μF 35WV	2	C
C711,712	**ECEA25V100**	Electrolytic 100μF 25WV	2	C
C713,714	ECQM05473MZ	Polyester 0.047μF 125WV ±20%	2	C
C715,716	**ECEA35V10**	Electrolytic 10μF 25WV	2	C
C717,718	ECKD1H102PF	Ceramic 0.001μF 50WV +100, −0%	2	C
C801,802	ECAG16ER33	Electrolytic 0.33μF 16WV	2	C
C803,804	ECQS1392JZ	Styrol 3900pF 100WV ±5%	2	C
C805,806	ECQS1332JZ	Styrol 3300pF 100WV ±5%	2	C
C807,808	ECQS1222JZ	Styrol 2200pF 100WV ±5%	2	C
C809,810	**ECEA16V10**	Electrolytic 10μF 16WV	2	C
C811,812	**ECEA16V10**	Electrolytic 10μF 16WV	2	C
C813,814	ECQS1472JZ	Styrol 4700pF 100WV ±5%	2	C
C815,816	ECQS1562JZ	Styrol 5600pF 100WV ±5%	2	C
C817,818	**ECEA16V10**	Electrolytic 10μF 16WV	2	C
C819,820	ECQM05273FZ	Polyester 0.027μF 50WV ±1%	2	C
C821,822	ECQM05473JZ	Polyester 0.047μF 50WV ±1%	2	C
C823,824	**ECEA16V10**	Electrolytic 10μF 16WV	2	C
C825,826	ECQM05104KZ	Polyester 0.1μF 125WV ±10%	2	C
C827,828	ECQM05334KZ	Polyester 0.33μF 125WV ±10%	2	C
C831	ECQS1182JZ	Styrol 1800pF 100WV ±5%	1	C
C832	ECAG16ER1	Electrolytic 0.1μF 16WV	1	C
C833	**ECEA16V100**	Electrolytic 100μF 16WV	1	C
C834	ECAG16ER1	Electrolytic 0.1μF 16WV	1	C
C835	ECQM05333MZ	Polyester 0.033μF 125WV ±20%	1	C
C836	ECQM05683MZ	Polyester 0.068μF 125WV ±20%	1	C
C837	ECQS11471JZ	Styrol 470pF 100WV ±5%	1	C
C838	ECQM05104KZ	Polyester 0.1μF 125WV ±10%	1	C
C839	ECCD1H101K	Ceramic 100pF 50WV ±10%	1	C
C840	**ECEA16V220**	Electrolytic 220μF 16WV	1	C
C841	**ECCA16V10**	Electrolytic 10μF 16WV	1	C
C843	**ECEA50V1**	Electrolytic 1μF 50WV	1	C
C844	**ECEA16V47**	Electrolytic 47μF 16WV	1	C
C845	**ECEA16V100**	Electrolytic 100μF 16WV	1	C
C846	**ECEA16V220**	Electrolytic 220μF 16WV	1	C
C847	**ECEA50V1**	Electrolytic 1μF 50WV	1	C
C848	**ECEA16V47**	Electrolytic 47μF 16WV	1	C
C849,850	ECCD1H331K	Ceramic 330pF 50WV ±10%	2	C
C851,852	**ECEA16V10**	Electrolytic 10μF 16WV	2	C
C853	ECEA16N10	Electrolytic 10μF 16WV	1	C
C901,902	ECET25R332	Electrolytic 332μF 25WV	2	C
C903	ECET16R3300	Electrolytic 3300μF 16WV	1	C
C904	ECET35R332	Electrolytic 332μF 35WV	1	C
C905	ECKD1H223PF	Ceramic 0.022μF 50WV +100, −0%	1	C
C906	ECKD1H102PF	Ceramic 0.001μF 50WV +100, −0%	1	C
C907	**ECEA16V220**	Electrolytic 220μF 16WV	1	C
C908,909	**ECEA50V3R3**	Electrolytic 3.3μF 25WV	2	C
C910,911	ECKDDS101MB	Ceramic 100pF 250WV ±20%	2	C
C913	ECQM05334MZ	Polyester 0.33μF 125WV ±20%	1	C
C914	**ECEA16V10**	Electrolytic 10μF 16WV	1	C
C915	ECKD1H223PF	Ceramic 0.022μF 50WV +100, −0%	1	C

VARIABLE RESISTORS

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks
VR102～105	SVV2	Preset	4	A
VR106	EVLS3AA00B53	V. Adj. 5kΩ	1	A
VR107	EVLS3AA00B24	Dolby Adj. 20kΩ	1	A
VR108	EVLS3AA00B23	V. Adj. 2kΩ	1	A
VR301	EVTS3MA00B53	MPX V. Adj. 5kΩ	1	○ A
VR302	EVLS3AA00B13	MPX V. Adj. 1kΩ	1	A
VR401,402	EVLS3AA00B24	Dolby, Adj.	2	A
VR403,404	EWKGTA331A24	REC Volume 20kΩ(A)	1	○ A
VR405,406	EVLS3AA00B53	V. Adj. 5kΩ	2	C
VR407	EVLS3AA00B14	V. Adj. 10kΩ	1	A
VR501～504	EWK8EA331A54	Bass, Treble 50kΩ (A)	2	A
VR505,506	EWFN3AK30A54	Volume 50kΩ (A)	1	A

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks
VR507	EVH0VA363G54	Balance 50kΩ (G)	1	A
VR801	EVLS3AA00B13	Bias V. Adj.	1	A
VR802,803	EVLS3AA00B14	Bias V. Adj.	2	A
VR901	EVLS3AA00B13	V. Adj.	1	A
VARIABLE CAPACITORS				
CT201～204	SCVCTY211D31	Trimmer Capacitor	2	○A
CV201,202	SCVCY21W114	Tuning Capacitor, w/Volume (VR101)	2	○A
SWITCHES				
S1-1～S1-2	ESB7067	Power ON/OFF	1	A
S101～111	SSH508	Preset	1	○A
S401～406 801～804	SSH208	Dolby E.Q.	1	○A
S807	SST12	Beat Shift	1	A
SF1～6	SSH608	Function	1	○A
ST1～ST12	ESD86022	REC	1	○A
CHASSIS				
CH1	RDD382YA	Drum Dial	1	C
CH2	RDS4090A	Spring, Drum	1	C
CH3	RDR23	Pulley, Dial	1	C
CH4	RDR20	Pulley, Dial	5	C
CH5	RDY36	Shaft, Pulley	1	C
CH6	RNW150-2	Washer, Pulley	6	C
CH7	RDZ05-A	Cord, Dial	185cm	C
CH8	SDT9302K	Shaft, Tuning	1	C
CH9	RDY34	Shaft, Pulley	5	C
CH10	SHR134	Clamp, Cord	1	C
CH11	SMX136	Cover, Insulating Case	1	C
CH12	SXE98	Cassette Bracket Assembly	1	C
CH13	SUS180	Arm Spring	1	C
CH14	SUS84-1	Spring, Button	1	C
CH15	SXE118	Pointer, Dial	1	C
CH16	SHG958	Rubber, Lamp	1	C
CH17	SJA88	AC Cord	1	C

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks
CH18	SJF110	Fuse Holder	10	C
CH19	RJJ87YA-C	Jack Microphone	2	C
CH20	SJF9208	Din Jack (2P)	1	C
CH21	SJF9102	Din Jack (5P)	1	C
CH22	SJF9406	ANT Jack	1	○C
CH23	SJJ84	Jack, Head Phone	1	C
CH24	SWK242	Plug w/Lead 3P Deck	1	C
CH25	SWK240	Plug w/Lead 3P Deck	1	C
CH26	SWK238	Plug w/Lead 6P Deck	1	C
ACCESSORIES				
–	SQX5800	Instruction Book (SDF. SEV. OVE. GF. GF-2)	1	○C
–	SPT1HCZNRAZ	Demonstration Tape	1	C
–	WM2201N	Microphone 0.3kΩ	2	C
–	SJM2	Microphone Stand	2	C
CABINET				
CA1	SYK1478	Cabinet Assembly	1	○C
CA1-1	SBC190-1	Reset Button	1	○C
CA1-2	SGX1004	Ornament, Cassette	1	○C
CA2	SUV124	Rear Cover (SEV only	1	○C
CA3	SXE104	Hook Assembly	1	C
CA4	SGE698	Dust Cover	1	○C
CA5	SYE450	Cassette Lid Assembly	1	C
CA6	SBH9046	Hinge (R)	1	○C
CA7	SBH9048	Hinge (L)	1	○C
CA8	SBH9040	Cap	2	C
CA9	SKM5000-1	Cabinet Body B	1	○C
CA10	SHS3018	Felt, Foot	4	C
CA11	SKE300	Lid, VR	1	○C
CA12	SYE306	Bottom Board Assembly	1	○C
CA13	SYP286	Escutcheon Assembly	1	○C
CA14	SBN716	V Knob, Sub.	4	C
CA15	SGN2860	Name Plate	1	○C
CA16	SHR9014-2	Rubber, Lamp	1	C
CA17	SGL132	Indicator, Dolby	1	○C

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks
CA18	SWE112	Lamp Rubber Assembly	1	C
CA19	SYE468	Push Button A Assembly	6	○ C
CA20	SYE470	Push Button B Assembly	7	○ C
CA21	SYE472	Power Button Assembly	1	○ C
CA22	SBN726K	T Knob Assembly	1	○ C
CA23	SBN728K	V Knob Assembly	5	○ C
		CASSETTE DECK (SJD-86)		
1	SMQ1626	Reel Table	2	B
1-1	XUC12FT	Circlip 1.2ϕ	1	C
1-2	SMQ462	Spring, Supply Reel	1	C
2	SMQ1544	Tape Counter	1	B
2-1	XSS3+5S	Screw 3 mm × 5, Counter Mounting	2	C
3	SMQ1588	Belt, Counter	1	A
4	SMQ1364	Pressure Roller Assembly	1	A
4-1	XUCS19	Circlip 1.9ϕ	1	C
5	SMQ1366	Spring, Pressure Roller	1	B
6	SJH14	Erase Head	1	A
6-1	XSN2+10	Screw 2 mm × 10	2	C
7	SJH34	R/P Head	1	A
7-1	XSN2D6	Screw 2 mm × 6	1	C
7-2	XSN2+10	Screw 2 mm × 10	1	C
7-3	XWE2A6	Washer 2ϕ	1	C
8	SMQ678	Spring, R/P Head	1	B
9	SMQ1362-1	Base Assembly, Head	1	C
10	SMQ1388	Eject Stop Lever w/Spring	1	C
10-1	XSB26+6	Screw 2.6 mm × 6, Head Panel	1	C
11	SMQ1354	Brake Arm	1	C
12	SMQ1358	Spring, Brake Arm	1	B
13	SMQ1394	Spring, Tape Holder	1	B
13-1	XYN26+5	Screw 2.6 mm × 5	1	C
14	SMQ1390	Lever Assembly, Auto-Stop	1	C
14-1	XSS2+5	Screw 2 mm × 5	1	C
15	SMQ1392	Spacer, Auto-Stop Lever	1	C
16	SMQ1444	Spring B, Head Panel	1	B
16-1	XUC25FT	Circlip 2.5ϕ	1	C
17	SMQ1360	Spring A, Head Panel	2	B
18	XSB26+4	Screw 2.6 mm × 4, Head Panel	1	C
19	SMQ1232	Lever, REC Safety	1	C
19-1	SMQ1706	Stopper, REC Safety Lever	1	B
20	SMQ662	Spring, REC Safety Lever	1	B
22	MHT5PS	DC Motor	1	A
22-1	XWE26D7	Washer 2.6ϕ, 0.5t	3	C
22-2	XSN26+6	Screw 2.6 mm × 6	3	C
23	SMQ1384	Motor Pulley w/Screw (XXA2A-3)	1	B
24	SMQ718	Spacer, Motor	3	C
25	SMQ716	Rubber Cushion, Motor	3	C
26	SMQ1378	Leaf Switch, Motor ON-OFF	1	A
26-1	XWE26D7	Washer 2.6ϕ, 0.5t	1	C
26-2	XSN26+6	Screw 2.6 mm × 6	1	C
27	SMQ1704	Push Button Frame Assembly	1	C
29	SBC200-3	Push Button	6	B
30	SMQ1396	Lever, Eject Slide, w/Spring	1	C
30-1	XSN26+6	Screw 2.6 mm × 6	1	C
30-2	XYN26+5	Screw 2.6 mm × 5	1	C
31	SMQ1374	Spacer A, Eject Slide Lever	2	C
32	SMQ1398	Spacer B, Eject Slide Lever	2	C
33	SMQ1530	Play Lever	1	C
34	SMQ1524	Spacer, Play Lever	1	C
35	SMQ1528	Bracket, Amp. Switch	1	C
35-1	XSN26+5	Screw 2.6 mm × 5, Amp. Switch	1	C
35-2	XYN26+C8	Screw 2.6 mm × 6, Play Lever	1	C
36	SMQ1380	Leaf Switch, Tape Amp. ON-OFF	1	A
36-1	XWE2A6	Washer 2ϕ	1	C
36-2	XSN2+5	Screw 2 mm × 5, Amp. Switch	1	C
37	SMQ1436-1	Lever, Auto-Stop Drive	1	C
37-1	XWE26D7	Washer, 2.6ϕ, 0.5t	1	C
37-2	XSN26+6	Screw 2.6 mm × 6	1	C
38	SMQ1438	Spacer, Auto-Stop Lever	1	C
39	SMQ1422	Lever, REC Slide	1	C
40	SMQ1426	Spacer, REC Slide Lever	1	C
40-1	XYN26+5	Screw, 2.6 mm × 5	1	C
41	SMQ1386	Rewind Idler	1	C
41-1	XUC15FT	Circlip, 1.5ϕ	1	C
42	SMQ1408	Rewind Arm w/Spring	1	C
43	SMQ1406	Operation Plate, Brake	1	C
43-1	XUC4FT	Circlip 4ϕ	1	C
44	SMQ1382-1	FF Arm Assembly w/Spring	1	C
44-1	XUC4FT	Circlip 4ϕ	1	C
45	SMQ678	Spring, Flywheel Retainer	1	B
46	SMQ1370-1	Shaft, Flywheel	1	C
46-1	SMQ1402	Nylon Washer	1	C
47	SMQ686	Flywheel	1	B
47-1	SMQ148	Washer, Oil Thrower	2	C
47-2	XYN2+C5	Screw 2 mm × 5	3	C
48	XMQ1372	Belt, Main	1	A
49	SMQ1404	Retainer, Flywheel	1	C
49-1	XSN26+10	Screw 2.6 mm × 10	1	C
50	SMQ1368	Clutch Assembly w/Spring	1	C
50-1	XUC2FT	Circlip 2ϕ	1	C
51	SMQ1410	Pause Lever	1	C

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks
51-1	XYN26+5	Screw 2.6 mm × 5	1	C
52	SMQ1412	Spacer, Pause Lever	1	C
53	SMQ1414	Pause Slide Lever A w/Spring	1	C
53-1	XUC2FT	Circlip 2ϕ	1	C
54	SMQ1416	Pause Slide Lever B	1	C
54-1	SUC15FT	Circlip 1.5ϕ	2	C
54-2	XWE2A6	Washer 2ϕ	1	C
55	SMQ1376	Pause Click Lever	1	C
55-1	XUC15FT	Circlip 1.5ϕ	1	C
56	SMQ1418	Spring, Pause Click Lever	1	B
57	SUS202	Spring Plat, REC Switch	1	B
57-1	XYN3+C6S	Screw 3 × 5 mm, REC Spring	1	C
58	SMQ1430	Rewind Lever	1	C
58-1	SMQ1434	Nylon Washer 6.1ϕ	1	C
59	SMQ1432	FF Lever	1	C
59-1	XUC32FT	Circlip 3.2ϕ	1	C

RECORD PLAYER (SP-521A)

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks
2	SJY4020	T.T. Seat	1	○ C
3	SJY3010	T.T.	1	○ C
4	SFGB321-1	Belt	1	○ B
5	SJY5018	45 RPM Adaptor	1	○ C
6	SJY9168	Motor Mounting Shaft	1	C
7	SJY9092	Rubber, Cushion	1	C
8	SJY78	Cut Knob Assembly	1	○ C
9	SJY80	Speedo Select Knob Assembly	6	○ C
10	SJY76	Pickup Rest Assembly	1	○ C
11	SJY5052	Lift Assembly	1	○ C
12	SJY9228	Spring, Lift B	1	C
13	SJY1010	Player Board	1	○ C
14	SUW1292	Reinforcing Angle A	2	○ C
15	SUW1294	Reinforcing Angle B	2	○ C
16	SJY9232	Spring A, Player Panel	1	○ C
17	SJY9244	Rubber, Cushion	4	○ C
18	SJY9234	Spring B, Player Panel	3	○ C
19	MHN-5P2RDA	Motor w/O Motor Pulley	1	○ A
19-1	SJY9294	Motor Pulley w/Screw (XXA2D3FR)	1	○ B
20	FE-EGA462	P.C.B. Assembly w/Variable Resistor	1	○ B
20-1	EVN31AA00B24	Variable Resistors	2	○ B
21	SJY32	Gear Mechanism Assembly	1	○ C
22	SJY94	Spindle Assembly	1	○ C
23	SJY9112	Steel Ball	1	○ C
24	SJY9278	Seat Plate	1	○ C

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks
25	SJY9268	Reject Arm	1	○ C
26	SJY9266	Spring C	1	○ C
27	SJY88	Base Plate Assembly	1	○ C
28	SHE36-1	Wire Crip	4	C
29	SJY92	Trip Slide Assembly	1	○ C
30	SJY9280	Steel Ball	1	○ C
31	SJY9276	Fuse Holder	1	○ C
32	SJY9262	Spring A	1	○ C
33	SJY96-2	Switch Box Assembly	1	○ B
34	SUP7260-1	P.U. P.C.B.	1	○ C
35	SJY9264	Spring B	1	○ C
36	SJY90	Sliding Arm Assembly	1	○ C
37	SJY9236	Stop Spring	1	C
38	SJY9238	Cut Lever	1	○ C
39	SJY9246	Cut Lever Holder	1	○ C
40	ESR-E112K20F	Rotary Switch	1	○ B
41	SJY9258	Rubber, Cueing Lever	1	○ C
42	SJY82	Cueing Lever Assembly	1	○ C
43	SJY5054	Knob, Cue Lever	1	○ C
44	SJY9256	Cueing Lever Holder	1	○ C
45	SJY98	Rest Lever Assembly	1	○ C
46	SJY9230	Spring, Lift A	1	C
47	SJY5042	Lift Rod	1	C
48	SJY84	Sliding Board Assembly	1	C
49	SWK248	Pickup Plug Assembly	1	○ C
50	SWK246	AC Cord Assembly	1	○ C
51	EPU-614SMAD	Pickup Assembly w/Nut, Washer	1	○ A
51-1	SJY102	Balance Weight	1	○ C
51-2	SJY104	Tone Arm Assembly w/Nut, Washer	1	○ C
51-3	SJY100	Head Shell Assembly, w/Cartridge w/Stylus	1	○ A
51-4	EPC-79SMAD	Cartridge w/Stylus	1	○ A
51-5	EPS-56STSD	Stylus	1	○ A

SUPPLEMENT

The following items have been added to this manual, so please refer to the appropriate headings of the text together. And to add that, Schematic Diagrams figure A and B may be used alternatively.

REPLACEMENT PARTS LIST

Page 20

Ref. No.		Part No.	Description	Per Set (pcs.)	Remarks			
R848,849		ERD25TJ102	Carbon 1kΩ 1/4W ±5%	2	C			

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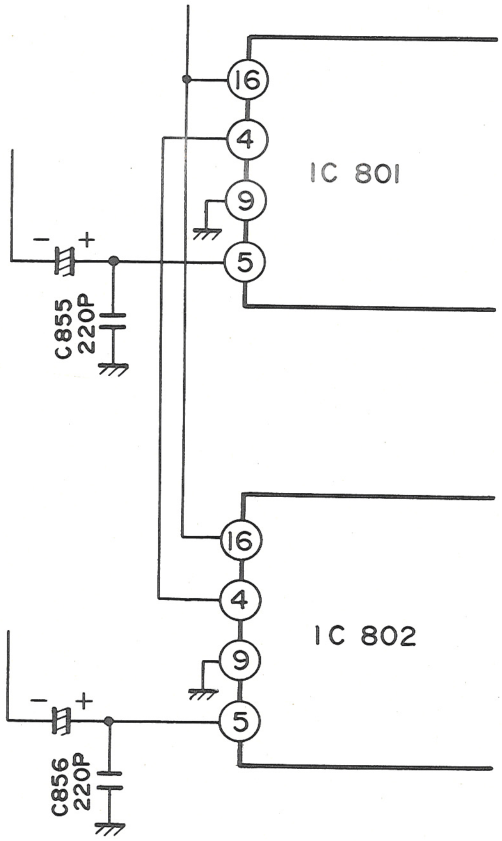
Ref. No.		Part No.	Description	Per Set (pcs.)	Remarks			
C855,856		ECQS1221JZ	Styrol 220pF 100WV ±5%	2	C			

SCHEMATIC DIAGRAM ..... Page 7



16
4
IC 801
9
5
− +
C855
220P
16
4
IC 802
9
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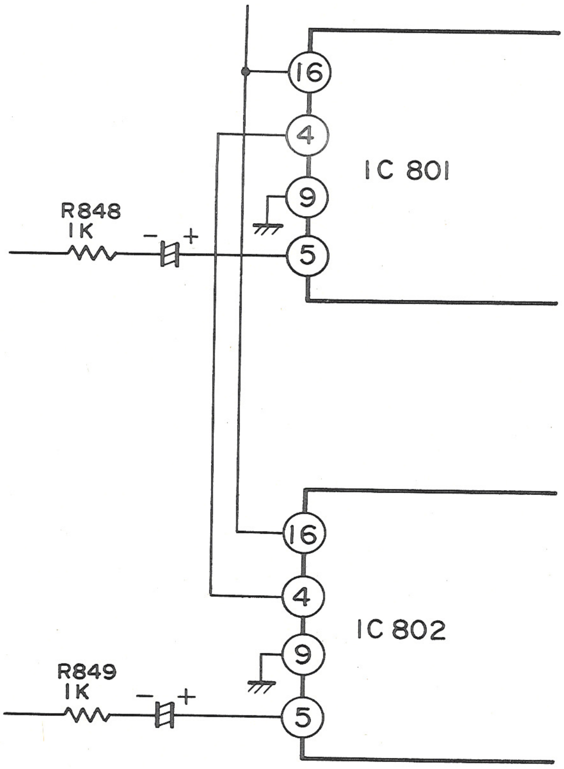
− +
C856
220P

FIG. A



16
4
IC 801
9
R848
1K
− +
5
16
4
IC 802
9
R849
1K
− +
5

FIG. B